

**THE CHEMIST AND DRUGGIST**

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A copy of this Supplement is inserted in every number issued of "THE CHEMIST AND DRUGGIST."

**SPECIAL EXTRA SUPPLEMENT.**  
FEB. 19, 1887.

**BUSINESSES WANTED.**  
**BUSINESSES FOR SALE.**  
**PREMISES TO LET.**

**AUCTION SALES**

**PARTNERSHIPS.**  
**SITUATIONS WANTED.**  
**SITUATIONS VACANT.**

**EXCHANGE COLUMN**

Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until 5 p.m. on Thursday afternoon, or by first post on Friday morning of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

The Terms for Advertisements in this Supplement will be found printed under each heading.

The VALUE of "THE CHEMIST & DRUGGIST."

**TESTIMONY BY ADVERTISERS.**

We have recently received many expressions of satisfaction from Advertisers, and amongst them is the following note:—

I am most gratified with the results of my advertising in your paper. I consider it by far the better journal for business than any other published. Facts speak for themselves. I find THE CHEMIST AND DRUGGIST mentioned ten times where other of our Trade Journals are once. I cannot allow this opportunity to pass without thanking you for the unremitting attention you have always shown. I must confess I had grave misgivings concerning your alteration from monthly to weekly publication; but, instead of fears, they are a pleasurable knowledge that business has increased wonderfully. (32/22.)

OFFICE: 42 CANNON STREET, LONDON, E.C.

## CHEMISTS' TRANSFERS.

### MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.,

**CHEMISTS' TRANSFER AGENTS,**

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

\* The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

Particulars of any of the following will be sent free on application:—

- 1.—£1,050.—LONDON, W.—High-class handsomely fitted shop, for immediate disposal (illness of the vendor); good position; open to the fullest investigation; about £1,050 required.
- 2.—£800.—LONDON, S.E.—First-class Business; very old-established; returns over £800 yearly; net profits £300; shop handsomely fitted; large house, all in good repair; price to be arranged to suit purchaser, part can be paid by instalments.
- 3.—£650.—LONDON, E.—Ready-money Business of good class for immediate disposal; returns nearly £775, very profitable; large double-fronted shop, well fitted; good house, garden, &c.; price £650.
- 4.—£500.—LONDON, S.W.—Good-class Retail and Dispensing for immediate disposal; handsomely fitted and well stocked; returns increasing weekly; about £500 required.
- 5.—£650.—LONDON, S.E.—Main street; good-class ready-money Business; returns nearly £750; large double-fronted shop, and good house; open to the fullest investigation; price about £650.
- 6.—£750.—LONDON, SOUTH.—Good suburb; Family Retail and Dispensing Business; returns nearly £900, profits above the average; well-fitted shop, good house, rent low; price £750.
- 7.—£600.—LONDON, S.W.—Old-established good-class Business; shop handsomely fitted (by Treble); returns nearly £750, can be largely extended; full prices; good house (new), lease will be granted; price £600.

8.—£800.—LANCASHIRE.—First-class Retail and Dispensing Business for sale (illness of the vendor); held by him 11 years; returns have been £900 to £1,000; good residence; full investigation allowed; about £800 required.

9.—£1,050.—NORTH MIDLANDS.—Good-class Business, Retail and Dispensing; returns over £1,300, with good profits; personal introduction will be given; large house, very convenient; price about £1,050; worth attention.

10.—£1,200.—HOME COUNTY.—Good town; Retail and Dispensing Business, of good class, with Mineral Water Trade attached; returns nearly £1,350, with good profits; full prices for everything; price about £1,200.

11.—£350.—SOUTH WALES.—Good class Retail and Dispensing; returns £460, profitable; good house; price £350; vendor, retiring from the business, is anxious for an immediate sale.

12.—£1,200.—NORTHERN CITY.—General Retail and Dispensing; returns last year nearly £1,700; large double-fronted shop, well fitted, good stock; convenient house; price about £1,200.

13.—£450.—SUFFOLK.—Light Retail and Prescribing Business of good class; held by the present owner 13 years; returns at present about £650 yearly, with good profits; large house; rent £38; large garden; price £450.

14.—£650.—HOME COUNTY.—Good market town; Retail and Dispensing, with large increasing sale of proprietary articles; returns nearly £800; good house, well situated; price £650.

## WANTED.

**WANTED.**—FIRST-CLASS DISPENSING BUSINESSES, EITHER IN LONDON OR GOOD PROVINCIAL TOWNS—PROFITS NOT UNDER £500 YEARLY.

**WANTED.**—PARTNERSHIP, IN A WHOLESALE HOUSE, LONDON OR PROVINCES.

N.B.—NO CHARGE TO PURCHASERS. Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.



## TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**IPSWICH.**—House and Shop, with plate-glass front, to Let, in good thoroughfare; rent £19; suitable for Chemist and Dentist, to which might be added the Oil and Colour business, there being good cellarage; a good opening for an energetic man; if desired, premises may be had for starting an Aërated Water manufactory. Inquire of J. R. Cattermole, Ipswich.

**TO CHEMISTS AND DENTISTS.**—There is an excellent opening in the above profession for a thoroughly qualified registered Chemist and Dentist, in Great Crosby, near Liverpool. Premises, with capital residence, with all modern conveniences, will be fitted up all ready to commence business, and rent will be very moderate. Apply to T. May Smith, Great Crosby, or to Fern Lea, Kensington, Liverpool.

## PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**PARTNER** wanted in a thoroughly good provincial Retail and Surgeon's Wholesale Business; capital required, £600 to £800. Bowen & Plant, Solicitors, Dudley.

**PARTNER** required by a registered Chemist in a flourishing Indiarubber, Waterproof, and Surgical Indiarubber business; well stocked, and capable of great extension; capital required, £300 to £500. Would suit a Chemist well; good and profitable investment; previous knowledge not a necessity. Address, in first instance, "Alpha," care of Mr. Lancaster, Chemist, 4 Commercial Road, Peckham, London, S.E.

## BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**A COUNTRY** Business, producing about £400 net profits per annum, or working partnership would be entertained. Address to "Apis," Messrs. Evans, Sons & Co., Liverpool.

**WANTED**, to purchase a Mixed Country Business, returning about £500 to £600 per annum; must have a good house. Address, F., care of Herrings & Co., 40 Aldersgate Street, London, E.C.

## BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**TO BE DISPOSED OF**, forthwith, by private treaty, the good-will, fixtures, and stock-in-trade of an old-established Drug Business, in the main thoroughfare of one of the most pleasant suburbs of Manchester; price for good-will, fixtures, and stock-in-trade, £450, or £180 for fixtures and good-will alone, and the stock-in-trade to be taken by the purchaser at a valuation; shop rent £40 per annum; lease could be had of the premises for a term of years if desired; business capable of extension; a grand opening for an energetic business man. For further particulars apply to Robert Innes, Solicitor, 53 Princess Street, Manchester.

**FOR DISPOSAL.**—Immediate possession; a Chemist's Business in one of the best parts of Boston; stock, &c., at valuation. Apply, W. Manton, Printer, Boston.

**WHOLESALE DRUG BUSINESS.**—For disposal, a first-class profitable going Business, in Scotland; established upwards of 20 years; easy entry; satisfactory reasons for giving up; business premises may be purchased or had on lease. Apply by letter only, "Chemist," care of Messrs. C. R. Harker, Stagg & Moss, 15 Laurence Pountney Lane, London.

**£420.**—Profitable Retail and Prescribing Business, in a large and populous neighbourhood, in Liverpool; old-established; good premises; 2½ years' lease; rent very cheap; Proprietary Article worth £50 given in; good chance for a pushing man; satisfactory reasons for disposal. "Alpha," care of Mr. Powell, Bold Place, Liverpool.

**FIRST-CLASS** Dispensing and Family trade, situated in the best position in one of the most fashionable Midland watering-places; established over 20 years by vendor; shop handsomely fitted in mahogany and in perfect order; well-appointed house; six bedrooms and three reception rooms; private entrance; good business premises; yard and garden; returns nearly £400 at full prices; rent £100; lets off £95 per annum; lease granted. For further particulars apply to F. F., Wyleys & Co., Wholesale Druggists, Coventry.

**RARE BARGAIN.**—Genuine Mixed Business (Branch), near Birmingham; chiefly profitable Light Retail; populous neighbourhood; large corner shop, handsomely fitted; rent £40; good house, private entrance; January returns £45 12s. 6d.; valuation only, about £250; no goodwill; good prescriber with personal attention would realise fortune; worth attention. Apply, 139 Monument Road, Birmingham.

**WEST OF ENGLAND** (In good market town).—Good Family Retail and Dispensing Business, with Stationery and Printing; returns £15,000, handsome net profits; good dwelling-house; low rent; price £1,300. Apply to Messrs. W. & H. Taylor & Co., 79 Queen St., Cheapside, E.C.

**FOR SALE**, an old-established Chemist's Business in one of the most thickly populated middle-class suburbs of Leeds; the business may be greatly increased by close attention, as the present owner has devoted most of his time to the Wholesale trade; turnover about £400 yearly; price £250, or at a valuation. Apply, Hirst, Brooke & Hirst, Leeds.

**SOUND** old-established ready money light Retail and Prescribing Business, in a thriving market manufacturing town in the Midlands; splendid chance for good prescriber, tooth extractor; returns £450, large profit; good premises; low rent. Full particulars from "Powder," D. Madden, 47 Lodge Road, Harborn, Birmingham.

**SEASIDE.**—South.—Light Retail, Dispensing, and Prescribing, at good prices, in improving town; excellent house (rent can be covered by letting in summer if desired); returns, which are yearly increasing, were last year nearly £900; price £750; illness sole cause of sale. F. J. Brett, Valuer, Leicester.

**KENT.**—Good-class Country Retail in pleasant town; returning about £1,000, and capable of increase; good house; full investigation solicited; price £650. F. J. Brett, Valuer, Leicester.

**LONDON, N.W.**—A small Retail and Prescribing Business, with good nucleus of Dental Practice; six-roomed house; rent £40; price £175; this is worth a qualified dentist's attention. Apply, W. H. Taylor & Co., Crown Buildings, 79 Queen Street, Cheapside, E.C.

**IMMEDIATELY.**—Retail, Dispensing, and Prescribing Business, pleasantly situated 35 miles south of London; returning £750; full prices; unopposed; rent £30; 10-roomed house, large garden, paddock, stabling; rare opportunity for £500; every investigation allowed. Another, Somerset, returning £550, for £450, and half remain for 3 years. Apply, Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

**£700.**—North of England, large town.—An old-established Retail and Prescribing Business; returns £1,050; profitable trade, never changed hands; large and convenient house. Address, B. G., care of Messrs. May, Roberts & Co., 9 Clerkenwell Road, London, E.C.

**MIDLAND COUNTIES.**—Good-class Dispensing, Retail, and Prescribing Business, with valuable Specialities; no paints, horse or cattle medicines; returns £1,500 a year; net profits £450; good shop, well stocked; established 20 years; in best position of a town of over 200,000 inhabitants; price £800. Apply, W. H. Taylor & Co., 79 Queen Street, Cheapside, London.



## EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**ESSENCES**, Ether Preparations, Confectionery, Colours, &c.—Required, a Gentleman who has had experience of above, to Manage a Department in a country factory; good opening for an active man. State salary required and full particulars to C. W. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, thoroughly competent and experienced Traveller for Aërated Water trade; no other need apply; good salary to the right man. Apply, G. H., care of Woolley, Sons & Co., Manchester.

**WANTED**, a Qualified Assistant for a branch; aged about 30; single; indoor; good references indispensable. Address, stating salary required and full particulars, to J. Robins, Woodford, Essex.

**WANTED**, an active Young Man, unmarried (aged about 24 to 27), as Junior Assistant in a house at Singapore; must have been used to General Retail trade, and passed Minor examination of Pharmaceutical Society; also must have some knowledge of accounts. Address, "Signa," at Horncastle's, 61 Cheapside.

**WANTED**, an experienced Pill Maker who has been accustomed to coating pills in large quantities. Apply, 54/7, THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, a Young Man, 18 or 20, who has had some experience in a laboratory or drug warehouse, and can make himself generally useful; constant employment; good testimonials requisite. Apply, Messrs. Rimmington & Son, Bradford.

**WHOLESALE**.—Wanted, an efficient Counterman, experienced in above. State full particulars (age, salary, &c.) to M. C., care of Donnison & Son, Wormwood Street, E.C.

**MANAGER** for Branch, Light, Retail, and Dispensing; permanency for good business man; married preferred; between 30 and 40 years of age. State full particulars, with references, and how long in last situation, to B., care of Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool.

### MANCHESTER ROYAL INFIRMARY.

**JUNIOR Assistant Dispenser** required at once; Minor qualification; not over 30 years of age, and unmarried; salary £80 per annum; hours 8.30 to 6. Apply to General Superintendent.

## ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

**WANTED**, a situation as first-class Assistant to a Dentist or Chemist and Druggist, where a thorough knowledge of Dentistry may be acquired; good Dispenser and Tooth Extractor; aged 25; height 5 feet 9 inches; highest references as to character and ability. Address, "Dens," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**M. R. S. SMITH** takes occasional Confidential Charge during absence, illness, or transfer; distance no consequence. Address, 76 Devonshire Street, Bridgwater.

**AS OUTDOOR Assistant** or for Branch; married; Minor; aged 28; suburban experiences. Whiffin, 22 Hassell Street, Bedford.

**MANAGER** or Assistant; married; aged 23; Dentistry. "S," Rochelle, Selsdon Road, West Norwood.

**ASSISTANT**; aged 30 years; unqualified; 14 years' experience; good prescriber, extract teeth; excellent references. G. L., 87 Westbourne Street, Eaton Square, London.

**IN WHOLESALE**, Office, Laboratory, Sundries, Wet or Dry Counter; 20 years' experience; 5 years in present situation. J. F. Robertson, 43 Roman Road, Barnsbury, N.

**AS ASSISTANT** (outdoor preferred) or Manager to a Branch; experienced; aged 30. R. J., 41 Third Avenue, Harrow Road, W.

**MANAGER** or Out-door Assistant, by a Pharmaceutical Chemist, holder of medals and certificates of Pharmaceutical Society; married; at 25; 10 years' first-class experience. "Pharmaceutist," 10 Victoria St., Clifton, Bristol.

**AS ASSISTANT**; aged 23 years; 8 years' experience in good Retail and Dispensing business; good testimonials. Address, William Bryden, 35 Steven St., St. George's Cross, Glasgow.

**JUNIOR**; 5 years' experience in good-class Dispensing and General Retail; aged 21½. A. Wright, Gymnasium Street, Ipswich.

**AT WET COUNTER** in Wholesale; 9 years' experience. Taylor, Withernwick, Hull.

**AS ASSISTANT**.—Minor; aged 22½; good references; abstainer; disengaged. 41 Liqueurpond Street, Boston.

**A BROAD**.—Pharmaceutical Chemist desires a situation as Manager or Assistant; at present and for 12 years manager of a first-class Retail; accurate compounder, good counter hand; long experience, and general knowledge of the Drug trade; understands Oils, Colours, and Drysaltery goods; active duties of an extensive house in a large city preferred; highest reference in England and Ireland. Address, A. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

[A. B. will thank the writers of replies to his advertisement of last month for a situation abroad to write again, as their letters were lost through the post.]

**WHOLESALE**.—Wanted, re-engagement at end of month; London and Provincial experience; good references; aged 24. H. H., Messrs. Hodgkinson & Co., 198 Upper Whitecross Street, E.C.

**AS TRAVELLER** or Manager (married); 18 years' experience; unexceptionable references. S. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**APPRENTICE** or Turnover.—A Buswell, High Street, Lutterworth, has a vacancy for a well-educated youth; time for study, and every facility for learning the business. Address as above.

**A. THOMPSON**, Pharmaceutical Chemist, 95 High Street, Putney, has a vacancy for a smart, well-educated youth, as Apprentice, or one who has served part of his time; moderate premium.

## MISCELLANEOUS.

*Special charges are made for Advertisements under this heading, which can be obtained on application.*

**PURCHASER** wanted for a valuable Patent Ointment; proprietor is selling through not having sufficient capital to advertise and carry out the patent. Address, "Minalene," Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**TO PAY 200 PER CENT.**—For Sale, Dr. Clayton's Pain Soother and Humor Corrector, for all pain from Humor, Feverish Action, Inflammation, internal and external Sore Throat, Croup, for Humors in the Skin, Salt Rheum, Tetter, Sore Mouth, &c. (2s. 9d. and 4s. 6d. per bottle), which has been used in private practice over 40 years with best results. Address, A Harford, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.



**AGENTS** wanted for "Dr. Birley's Anti-Catarrh" and "Baby's Blessing"; exceptionally favourable terms to special agents. Write to-day for particulars to E. Birley & Co., 1 Cecil Street, Strand, London, W.C.

**PATENT MEDICINE PROPERTY**, or Proprietary Article, wanted to purchase, for cash. Send fullest particulars, price, sales, &c., to "Medicus," care of Gordon, Murray & Co., 17 Castle Street, Holborn, London.

**EDITORS.**—An old-established successful journal is about to be extended so as to include all affairs pertaining to Chemists and Druggists directly and indirectly; the services of a gentleman, well posted in all pharmaceutical matters, able to comment on trade topics, and whose name is known in these circles, is required to take charge of this department; experience as a journalist not absolutely necessary, but must be a good business as well as scientific man, and give his whole time; engagement for a term of years; also required a gentleman as Sub-editor to assist in the work; replies confidential. Please state full particulars, salary required, &c., to "Editors," Messrs. Street & Co., 30 Cornhill, E.C.

### CHEMISTS AND DENTISTRY.

**INSTRUCTION** and Lessons in Surgical and Mechanical Dentistry given; also arrangements to mutual advantage made with Chemists for qualified gentlemen to attend patients by appointment; special terms. Apply, Messrs. Ritchie, Son & Hambridge, Dentists, 2 Hanover Square, London, W.

## EXCHANGE COLUMN.

### FOR DISPOSAL.

#### Drugs and Chemicals.

Quantity pure glycerine and super lemon; exchange for saleable patents or cash. Kendall, Blyth.  
2 lbs. salicine, 2 lbs. ol. caryophyll ang., 7 lbs. pulv. capsici opt.; what offers? Sutherland, Chemist, Dumfries.  
About 6 cwt. dried dandelion roots; what offer? Richard Hawkes, Pharmaceutical Chemist, Stratford-on-Avon.  
1 lb. iodoform, 15s.; Wehr. ol. caryophyll., 6s. lb.; 14 lbs. glycerine, 7½d. lb.; 4 lbs. ess. limonis exsuper, 6s. lb. J. C., Lingdale, Skelton, R.S.O.

#### Literature.

Muter's "Chemistry," Atfield's; "Lectures Practical Pharmacy," Proctor's; Harris's "Dictionary Medical Dental Surgery;" "Progress Pharmacy," Bell & Redwood (nearly new); cash offers? Lowe, Chemist, Lynn.  
"Atfield's Chemistry," 4th edition; ditto, 9th edition, nearly new; "Therapeutics," Ringer, 3rd edition; "Materia Medica," Garoud, 5th edition; "Pharmacopœia Française," almost new; what offers? W. L. Clarke, 5 The Pavement, Forest Hill, S.E.

#### Soda-water Machinery.

For sale cheap, or exchange, a six-bottle Macdonnell's filling-machine, with all extra parts complete, for bottling aerated waters; can be seen at work at any time. Carter & Co., Soda-water Works, Bristol.

#### Shop Fittings.

Mahogany top counters, 10 ft. 6 in. and 7 ft. 6 in. with drawers and shelves. Kendall, Blyth..  
Two 5-gallon stone wide-mouthed jars, with patent air-tight stoppers, Doulton's make. T. H., 12 Canonbury Place, Islington, N.  
Handsome specie jar, with royal arms, height 33 inches, and mahogany stand, nearly new. W. F. Pasmore, 320 Regent Street, W.  
200 shop rounds for sale, 20 and 30 oz., W. and N. mouth, shield shape, gold labels, in excellent condition. Offers to Waterhouse, High Street, Ramsgate.  
Ruhly globe lamp for sale, with bracket and fittings complete; condition as new; size Maw's 8/10/0. A. M., 65 Battersea Park Road.  
Two 24-inch specie jars, royal arms, in new condition, with mahogany stands, only 3/ 10s.; one slightly cracked, Scottish arms, 12s.; 1, 3½-gallon pear-shaped carboy, stoppered, 3s. 6d. "Chemist," 6 Mulberry Place, Edinburgh.

### Formulae.

B. P. ointments easily mastered in one hour; suitable for Minor students; 13 stamps. Stringer, Medical Hall, Bowdon.  
Reliable Recipes.—Cough balsam, lime and glycerine, rheumatic liniment, neuralgic tincture, cure unbroken chilblains, bronchial linctus, 6d. each; 6 for 2s. 6d. "Chemist," Edwards, Wye.  
Innumerable profits, without risk: "Spring Blossoms," the latest and most lovely perfume, resembles cherry blossom, quickly made, inexpensive; "Cold Cure," concentrated mixture, always relieves, pleasant taking, safe, profitable; "Liquor Santal. Flav., &c.," mixes clear with water, splendid preparation, equalling Hewlett's or Richardson's, great saving; recipes with instructions, 1s. 1d. each, 3 for 2s. 6d., free. See my advertisement on page 4. T. Brooks, Chemist, Louth.  
Reliable and original—Tarax. and podoph. liquid dentifrice, liq. hypophosph. co. conc. for syrup, brilliantine, infants' preservative,, to gild without battery, composition essence, cherry tooth paste, goat mixture, glycerine jelly (pink or white), white liniment (without eggs or oil), 1s. each, 3 for 2s. 6d.; many others. "Analyst," 22 Hornby Terrace, Morecambe.  
As Advertised.—Set gonorrhœa and syphilis recipes, 15 for 3s. 6d.; consumptive cough mixture pills, 1s. 6d.; cheap glycerine cream, perfect emulsion, 2s. 6d.; treatment for tic, very successful mixture pills, 1s. 6d.; new medicine for rheumatism, answers well in acute, 1s. 6d. Johnson, 64 Furness Hill, Sheffield.

### Miscellaneous.

Patents, cheap; write for list. 173/29.  
Maw's bed urinal, Fig. 11, new last November, never used. A. H. Cooper, Bradford-on-Avon.  
Iron tank, galvanised, brass tap, nearly new, 13½×8, cheap, particulars and price. G., 2 Northcot Road, High St., Walthamstow.  
Sike's hydrometer, complete, in mahogany box, very little used, cost 4/., cash 35s. Jefferson, 22 Robertson Street, Hastings.  
Veterinary anatomical syringe, with 6 pipes, 10s.; 1 yard poro-plastic splint, 10s.; Thorley's lactifer and Champny's spice, half price. Stanley, Southwell.  
Offers wanted for 11 ½-in. plate-glass shelves about 36 in. long by 5 wide; also bronzed shelf-brackets as Maw's fig. 2 and 7. Smith, Chemist, Newport, Mon.  
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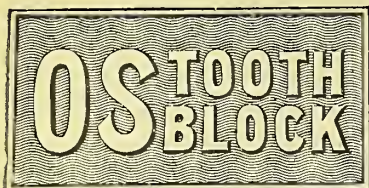
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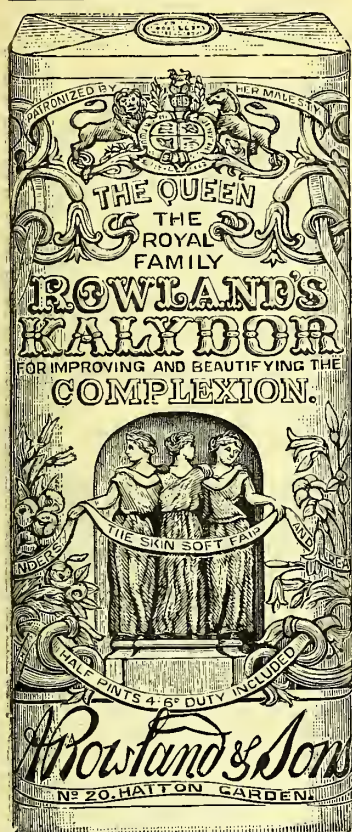
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**IN BULK.**—We quote SPECIAL PRICES if required in this way; and, being our own Printers, are prepared to supply Customers with special labels and directions for use at COST PRICE, and also supply small quantities of suitable bottles to fit orders at low prices, thus removing the trouble of first introducing the article. Samples and labels on application.

It is, we believe, superior to the imported or any other Colourings. Gives a splendid Golden Colour to Pomades Ointments, &c. Send for Samples and Prices before ordering elsewhere.

**READ THE FOLLOWING:**—For Univalled Testimony, see page 42, "CHEMIST AND DRUGGIST," 15th January, 1886.

**TOMLINSON & HAYWARD, Manufacturing Chemists, LINCOLN,**

Proprietors of Tomlinson & Co.'s "BUTTER POWDER," for removing all bad tastes from Butter;

The "GLYCERINE DIP," for Sheep and Lambs; "GRANULAR BROWNING," for Gravies, &c.; "Patent Axle Grease," "Anti-Corrosive Boiler Composition," "Mercurial Sheep Ointments," &c.

## GENUINE OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica, Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. *Retail in Bottles, 1s. each.*

Imported by **J. H. & S. JOHNSON, Wholesale Druggists,**  
6 8, & 10 WHITECHAPEL, AND 7 CHURCH STREET LIVERPOOL.

## GIBSON'S DELECTABLE JUJUBES, VOICE JUJUBES, & GLYCERINE PASTILLES,

Put up in 4-lb. Decorated Tins with Glass Lids, *Tins free*, are now being inquired for by buyers from all parts of the world.

They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED AND HIGH-CLASS LOZENGES, OF EVERY KIND, sent out in 2-lb. or 4-lb. Bottles, Bottles Free; or in Tins, from 10-lb. upwards.  
**Lime Juice Tablets, Malt Tablets, Acid Drops, and Best Quality Boiled Sugars of every kind.**

**CHLORODYNE JUJUBES AND CHLORODYNE LOZENGES.**

PENNY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale, keep in any climate, and please everybody. Manufactured by  
**ROBERT GIBSON, Carlton Works, Hulme, MANCHESTER, & 1 Australian Avenue, LONDON.**

Price Lists sent on application. Our Goods can be bought through any Wholesale or Export House in London.

## LOFODEN COD LIVER OIL CO.,

NEW SEASON'S First week In February.

London Office: 135 Vine St., Minorities, E.C.

Recommend their "NORTH STAR" Brand of non-congealable Cod Liver Oil as the finest and cheapest in the market. It remains brilliant several degrees below freezing point.

Write for Sample and Quotations, in Casks of 25 and 12½ Gallons, Drums and Winchester Quarts.

**N.B.—Our New Oil arrives FIRST WEEK IN FEBRUARY.**

## J. ATKINSON & CO.,

MANUFACTURING PERFUMERS, 5 Finsbury Square, LONDON,

PROPRIETORS OF THE "ZENITH PERFUMERY."

Manufacturers of High-Class Perfumery and Importers of the Finest Essential Oils only.

SAMPLES AND TERMS, WITH SPECIAL PRICES TO SHIPPERS AND LARGE BUYERS, ON APPLICATION.

Established  
1843.

## THOMPSON & CAPPER,

Established  
1843.

## WHOLESALE & EXPORT HOMŒOPATHIC CHEMISTS,

55 BOLD STREET, LIVERPOOL,

And (late HENRY TURNER & CO.)

51 PICCADILLY, MANCHESTER.

ILLUSTRATED PRICE LIST ON APPLICATION.

## THOMPSON & CAPPER'S DENTIFRICE WATER.

Sells well everywhere, its beneficent qualities being attested to by physicians in all parts of the world. (See Testimonials.)

**In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.**

Wholesale Agents for the Dominion of Canada:—EVANS, SONS & MASON, Limited, MONTREAL.

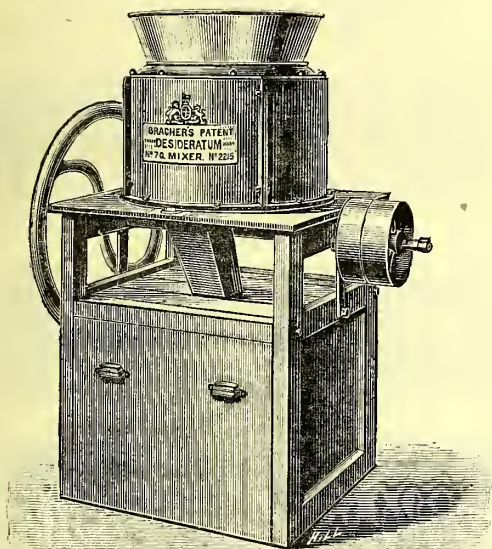


CALCUTTA INTERNATIONAL EXHIBITION, 1883-4.



GOLD MEDAL,

Highest and only Award ever obtained for Mixing Machines.



## UNSOLICITED TESTIMONIAL.

BENJAMIN SODDY, Baking Powder Manufacturer,  
243 Walworth Road, London, S.E.,  
Messrs. Bracher & Co., Feb. 11, 1887.

Gents,—Your "Desideratum" Mixer is a good workman—it does its work *first rate*.

I shall certainly keep it, and enclose you cheque in payment of same. I deducted the railway charge, and also 5 per cent. discount, which I believe is correct. Thanking you for your trouble,

I remain, yours truly,  
B. SODDY.

N.B.—This machine (Q. No. 7 Improved Pattern) was sent on trial for 14 days.

## PURE WATER!

BRACHER'S AUTOMATIC  
DISTILLING APPARATUS

(PATENT APPLIED FOR).

ILLUSTRATED PRICE LISTS ARE NOW READY.

Applications to be made to

**BRACHER & CO.,**  
PATENTEES AND MANUFACTURERS,  
**West Hill, WINCANTON.**

12½ gals. for £1, Cash free.

SPECIAL LINES FOR CASH BUYERS

**TYRER'S**  
**WORCESTER SAUCE,**  
**YORKSHIRE SAUCE,**  
**"BOROUGH" KETCHUP.**  
BEST VALUE THAT MONEY CAN PURCHASE.

Prices and Samples sent free of all cost by

PETER TYRER, The "Borough" Ketchup & Sauce Maker,  
LONDON, S.E.

## TOWER TEA

A SAFE and PROFITABLE addition to a Chemist's Business.

For retail at



The London Broken Tea ... 1/8

The London Two Shilling Tea... 2/-

The London 2/8 Assam Tea... 2/8

For Testimonials and References see the full page Advertisement which appears monthly in this Journal. Last insertion January 29, 1887, page 55.

**THE GREAT TOWER STREET TEA CO., LIMITED,**  
**LONDON.**

RANDALL'S BLACK CURRANT  
LOZENGES.

Plain Black Currant, old square	--	--	1. d.
" " " rough oval	--	--	2 6
Black Currant and Ipecacuanha	--	--	2 6
Black Currant and Tannin..	..	..	3 0
Black Currant Voice (warm astringent)	..	..	3 0
Black Currant Cough Lozenges *	..	..	3 6

(\* Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

**RANDALL & SON, Southampton,**

Who will forward Samples by post on application.

Also BROWN COUGH LOZENGES, 2s.; 7 lbs. stamped with name free,

MUSK LOZENGES (Special), 2s. 6d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.

## SPONGE.

**M. PETERSON & CO., Importers,**

66 SOUTH JOHN STREET,

LIVERPOOL.

For Home, Foreign, and Colonial Markets.

Wholesale only.

HAMBO SPECKLED.



TRADE MARK  
REGISTERED.

All Orders by Post receive immediate attention.

## LEECHES!

Warranted Healthy. Wholesale  
and for Exportation. Direct  
from Marshes.

**FITCH & NOTTINGHAM,**

LEECH BREEDERS,

4 CANONBURY SQUARE, LONDON, N.



TO THE  
**CHEMISTS & DRUGGISTS**  
 OF  
**GREAT BRITAIN.**

TELEGRAPHIC ADDRESS:  
**COLEMAN,**  
**GEORGE'S, NORWICH.**

*St. George's Middle St.,*  
**NORWICH,**  
*January 19th, 1887.*

For some time past we have been in communication with the Inland Revenue, Somerset House, respecting the manufacture of our "Liebig's Extract of Meat and Malt Wine, with Quinine." An objection was raised to the employment of Port Wine as it contained Tannic Acid and might precipitate the Quinine, so we substituted Sherry, and have received the following important letter from the Board:—

"INLAND REVENUE,  
 "SOMERSET HOUSE, LONDON, W.C.,  
 "18th January, 1887.

"Gentlemen,—Your further letter of the 18th ultimo having been laid before the Board of Inland Revenue, I am to acquaint you in reply that, although Tannic Acid is not wholly absent from the Wine used in the preparation of the fresh sample of 'Liebig's Extract of Meat and Malt Wine, with Quinine,' forwarded to this Office by the Supervisor at Norwich on the 31st ultimo, the Wine is so far free from it as to satisfy the objection raised in Mr. Forsey's letter of the 17th ultimo. So long, therefore, as the article is prepared in accordance with the sample referred to, **THE BOARD WILL NOT REQUIRE A WINE LICENCE** to be taken out to authorise its sale. "I am, Gentlemen,

"Your obedient Servant,  
 "W. B. HEBERDEN,

"Messrs. Coleman & Co. "Assistant Secretary."

**NO LICENCE IS THEREFORE REQUIRED** for the sale of our "Liebig's Extract of Meat and Malt Wine, with Quinine." Your orders will oblige either direct or through the Wholesale Houses.

Yours most obediently,

**COLEMAN & CO.**

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each;  
 Trade prices on application.*

**EIGHT PRIZE MEDALS AWARDED.**

**GOODALL'S**  
**HOUSEHOLD SPECIALITIES.**

**Yorkshire Relish**

THE MOST DELICIOUS SAUCE IN THE WORLD.

In Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name. GOODALL, BACKHOUSE & Co. No other is genuine.

**Goodall's**  
**Baking Powder**

THE BEST IN THE WORLD.

In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**Goodall's**  
**Quinine Wine**

In Bottles, 6d., 1s., and 2s. each.

**Goodall's**  
**Custard Powder**

Sold in Boxes, 2d., 6d., and 1s. each.

**Goodall's**  
**Blanc Mange Powder**

Flavours—Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's**  
**Egg Powder**

In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

**GOODALL, BACKHOUSE & CO.,**  
**WHITE HORSE STREET, LEEDS.**

**PATENT MEDICINES**  
 AND  
**DRUGGISTS' SUNDRIES.**

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

**GOODALL, BACKHOUSE & CO., LEEDS.**



T. &amp; F. J. TAYLOR'S



AERATED WATERS,

Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD Ph.D. F.R.S.

MESSRS. BROADHURST &amp; CO.,

PORCELAIN MANUFACTURERS,

9 UPPER BEDFORD PLACE, RUSSELL SQUARE, LONDON, W.C.

(Late of 15 CHARTERHOUSE STREET, E.C.)

Letters and Telegrams to London address (Works in Staffordshire).

MANUFACTURERS OF

Inside Aerated Water Stoppers (with Rubbers if required), all kinds of Screw Stoppers for Bottles, Plug Stoppers for Feeding Bottles, Screw Stoppers ditto, Feeding Bottle Caps, Shields for Feeding Bottles, Caps for Pomade Bottles in Turquoise, Jet, White, with name and address printed on them.

PRICES ON APPLICATION.



TRADE MARK.

MASON'S  
ESSENCE  
OF BEEF.

CONCENTRATED BEEF TEA.

MEAT LOZENGES, &amp;c.

The Trade would study their interests by introducing our preparations to their customers, for the reason that they are not only the best made, but at the same time the cheapest, and bear a larger margin of profit. A small trial order will prove the truth of the above statement.

Proprietors of the Delicious

"O. K." SAUCE.

GEORGE MASON &amp; CO., LD., 417 KING'S ROAD, LONDON, S.W.

CHELSEA,

Edwards'

BY ROYAL  
LETTERS PATENT.

HIGHEST

AWARDS:

Desiccated

Soup.

International Health Exhibition, LONDON, 1884.  
International Exhibition, LIVERPOOL, 1886.

Consists of the finest Vegetables and Extract of Beef in a dry state.

The Manufacturers beg to direct the attention of the Trade to the above article, now commanding a ready and remunerative sale. It is put up in a neat and attractive form, in 1-lb., 3-lb., and 5-lb. tins, to sell at 1s. 3d., 8d., and 4½d.; also in packets containing 1 oz. at 1d. These are packed in cases of 36 1-lb., 18 3-lb., or 72 1-lb. tins; the 1d. packets in gross and half-gross boxes in cases of 12 gross; carriage, tins, and cases free. A liberal supply of Show Cards, Glaciers, and printed matter, consisting of Circulars Medical Testimonials, Press Opinions, and Counter Bills bearing name and address.

Sample, with Terms, free on receipt of Business Card.

FREDK. KING &amp; CO., LIM.,

26 WARING STREET, BELFAST, and

6 Bishopsgate Avenue, LONDON.

# THE "LONDON-MADE" SYPHON BOTTLE

(TITLE REGISTERED).

Obtained the HIGHEST AWARD at the International Health Exhibition, London, 1884.



NOTE GROOVE IN BASE (PATENTED).

The high reputation this bottle has achieved is due to the fact of its being in every particular the most perfect yet introduced; and when compared with others in the market it stands pre-eminent. It is most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the handle being sufficient; it produces a more highly-charged gaseous water than is usually obtained from siphons; it compares most favourably in appearance with any, and the metal top being entirely free from lead, the prejudice against siphon drinks is at once removed, as the liquid passes over pure tin only.

All our Syphons are now fitted at the base with a groove, so that drips from the spout that run down the sides are prevented from soiling the table. See drawing.

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private-house use. Send for sample; forwarded upon receipt of 2s.

Any name, crest, or trade-mark put on this glass by an improved acid process, at from 18s to 24s. per gross. There is a three-fold advantage in this, as it forms a continual advertisement, is a great ornament, and a preventive of fraud. The plate for engraving costs extra from 5s. upwards, according to the artistic device required.

## PRICES (WHITE, BLUE, GREEN, OR AMBER):—

	By the gross,	Less than 1 gross,
	per doz.	per doz.
Quart size	£1 2 0	£1 4 0
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour (including Azure Blue)	1 4 0	1 6 0

Tops, nickel-plated, from 5s. 6d. per doz. extra. Tops, silver-plated and burnished from 9s. per doz. extra. A charge is made for packing, except when ordered in our patent tin cases holding one dozen each, price 2s. 6d. each.

Please Note.—B. & F. are the only firm manufacturing Syphons in England that do not supply them filled, and so compete with their customers' trade.

BARNETT &amp; FOSTER,

MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aerated Water Wine, Beer, and Cyder Trades,

"Niagara Works," 26<sup>th</sup> Eagle Wharf Road, London, N.

Send for Price List of Soda-water Machinery and Accessories.



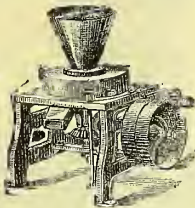
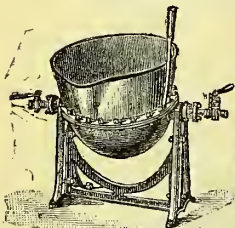
# "THE BEST NATURAL APERIENT."

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters with marks, names, and designations very similar to those which are used by the **APOLLINARIS COMPANY, LIMITED**, for their **NATURAL MINERAL APERIENT WATER**.

Under these circumstances the **APOLLINARIS COMPANY, LIMITED**, feel compelled to caution the public that the **HUNGARIAN BITTER WATER** (Hunyadi Janos) sold by the **COMPANY** always bears the name of the **APOLLINARIS COMPANY, LIMITED**, on the Label.

## JOSEPH BAKER & SONS, 58 City Road, LONDON, E.C.

Awards received for our Machinery:—3 Medals, including "THE GOLD MEDAL," Health Exhibition, London, 1884;  
DIPLOMA OF HONOUR, Amsterdam, 1886;  
2 GOLD MEDALS—HIGHEST AWARD—Edinburgh, 1886.



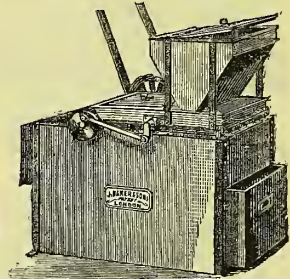
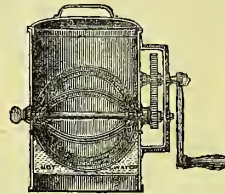
Drug and Grinding  
Mills.

Sifting and Mixing  
Machines.

Melting Pans.

Emulsion Mixers.

Lozenge and Jujube  
Machines.



PARTICULARS AND PRICES ON APPLICATION.



DR. KOCHS'

## MEAT PEPTONE

DIPLOME D'HONNEUR ANTWERP EXHIBITION, 1885.

The most Assimilable and Nutritious Extract of Meat yet offered to the public.  
Materially Cheaper and Superior to all similar Preparations.

Containing all the nutritious constituents, including the Albumen, of Fresh Meat Peptonised, i.e., so prepared that it is instantly assimilated without requiring the process of digestion. Invaluable to Invalids and persons of weak or impaired digestion, and in all cases of Dyspepsia, Poorness of Blood, Debility, &c.

Extract of Meat form : in pots of 3 1/2 oz. .... (retail, 2/-) ... 1/6 each	In Dry Form : Tablets in envelopes of about 7 oz. ... (retail, 4/-) ... 3/ each
" " " 8 oz. .... ( " 4/-) ... 3/ 6	" " " Lozenges in boxes [the most sustaining
" " " In tins of 33 oz. .... ( " 14/6) ... 11/ 6	" " " nourishment in the smallest possible compass] " 1/- ... -/9 "

Sole Wholesale Depot for Great Britain—BURGOYNE, BURBIDGES & CO., 16 Coleman Street, London, E.C.  
Who will be glad to forward Samples, Pamphlets, &c., upon application.

A daily luxury for rich and poor.

## VAN HOUTEN'S COCOA

Guaranteed Pure and Soluble,

Is simply unequalled, and, although a little dearer, really the cheapest in the end.

A cup of this cocoa costs no more than a cup of tea, and is a highly nutritive beverage.  
Digested with marvellous facility by the most delicate invalids and children.  
Made instantly with boiling water.

The **British Medical Journal** says:

"Van Houten's Cocoa is admirable. In flavour it is perfect, and it is so pure, well prepared, and rich in alkaloid, that it may with great advantage be largely used in public institutions, as well as in private families."

The **Lancet** remarks: "It goes a long way, and is really cheaper to use in the end, etc., etc."

Invaluable in railway stations, hospitals, on board ship, in the camp, for workmen (at home and to take to their work), etc., etc.

Try it once and you will use and recommend it always.

Sample tins free through your Grocer or Chemist.



# HAY'S HOP ALE ESSENCE

Is made from the Choicest Hops Grown.

TRADE MARK

**AERATED HOP ALE**  
made from this essence is unrivalled for its peculiarly fine Hop Flavour and Aroma.

"A beautiful essence, has a fine Hop Aroma, and is quite a pharmaceutical triumph."

*The Chemist and Druggist*



**HAY'S HOP ALE.**

"This is an excellent Non-Alcoholic beverage.

*The Lancet*

"Has the Hop Taste of Bitter Beer, and is a nearer approach to Bass's or Allsopp's Ale than any non-intoxicants preceding it."

*Eastern Morning News.*

Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.

Quantity required, two fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

**W. HAY, Manufacturing Chemist, Beverley Road, HULL, ENGLAND.**

BY ROYAL LETTERS PATENT.

## HASSALL & Co.'s PHOSPHO-CITRIC ACID

To Supersede Citric & Tartaric for Aerated Waters. It is recommended by the most eminent Physicians in Great Britain.

THE BEST HOUSES IN THE TRADE HAVE ALREADY ADOPTED IT.

It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £8 per cwt. cheaper than Citric Acid, which mostly contains lead.

WE COMPETE ON QUALITY AND PRICE.

Testimonial from Mr. A. J. MASON, Chemist, of Bexley Heath.

"Having gone carefully into the matter I have no hesitation in saying that the patentees have in no way overrated the merits of their acid. There is no doubt in my mind that Phospho-citric Acid produces a much higher class beverage—giving, as they say, 'greater body'—the one thing needful in this class of goods; also a fruity character and mellowness I have never been able to secure with the ordinary acids. The aroma is also more pronounced. 'Purity' was my great incentive to giving the acid a trial, but I found 50s. or 60s. (citric at 1s. 7d. per lb.) per cwt. an economy not often secured under such favourable circumstances."

Why pay 2/6 per lb. for Citric, when a purer and more efficient Acid can be bought at about  $\frac{1}{3}$  the price?

Beware of Imitations.

Write for Pamphlet and Testimonials.

3-oz. Sample will be sent on receipt of Postage (3 Stamps), or 14 lbs. on approbation.

**HASSALL & CO., Great Northern Goods Depot, King's Cross, LONDON.**

Reuter's Cables and Inland Telegrams—"REMPUJARON LONDON."

NEW YORK—F. J. MACNAUGHTAN, 20 CEDAR STREET.

## J. DUNLOP MITCHELL & CO.,

Office and Show Rooms: 130 to 136 INGRAM STREET, GLASGOW.

**THE BEST & HANDSOMEST WATER FILTERS EVER MADE.**

No one should drink unfiltered water. It is an acknowledged fact that nearly all our illnesses originate by drinking impure water. No house or establishment should be without one or more of our new "Mountain Dew" or "Rippling Rill" (Registered) Water Filters, entirely made of glass, in 1 and 2 gallons capacity.

**FEEDING BOTTLES**—Tinted, 24/ per gross; White Glass, 26/6.

**BOTTLES** of every description of shape and size, panelled and plain, stoppered and not, also with and without white metal screw tops, at lowest prices. Show and specimen Bottles, Glasses, and Jars in great variety; also Laboratory Glassware. Show and Stock Bottles and Barrels, after the style of Illustrations, in White Glass  $\frac{1}{2}$ , 1, 2, 3, and 4 gallons capacity, fitted with glass stoppers and silvered taps.

Perfect Security by Post and Rail. Corrugated paper-lined Boxes made any size, and fitted for one or more bottles. Also Wooden Post Boxes.

**SPECIALTIES.**

Illustrations, Samples, and Prices on application.

Correspondence solicited.

**AGENTS WANTED in the Colonies and Abroad.**





# THE NEW "PERFECTION" TOILET PAPER

WARRANTED FREE FROM CHEMICALS.

In ROLLS, 500 feet long 7/6 per doz., 75/- per gross.

In PACKETS of 500 each, 4/- ,, 42/- ,,

THE BEST AND CHEAPEST PAPER IN THE MARKET.

## THE CROWN TOILET FIXTURE

BRONZE FINISH, 18/6 per doz.

NICKEL FINISH, 22/- ,,

TO BE HAD FROM

**BLAKE & MACKENZIE,**

*Chemists' Printers,*

**SCHOOL LANE, LIVERPOOL.**

CHEAP COUNTER BILLS, SLIP LABELS,

PRESCRIPTION ENVELOPES, &c.

A large and varied assortment of Stock Labels always ready

SAMPLES POST FREE.

JAMES TOWNSEND, Medical Label Printer, EXETER.

**TOWNSEND'S 1887 ALMANACKS**

The UNIVERSAL.  
The BOUQUET. The PURSE.

Before ordering your Almanack  
send for Samples and  
compare.

<p>Crown 8vo. 7 1/2 X 4 1/2 5,000 6/9 10,000 11/6</p> <p>Chemists' Handbills. 5,000 11/6 10,000 18/-</p>	<p>LITHO. 1,000 9/6 3,000 18/- 5,000 25/-</p> <p>Chemists' Memorandums 3,000 15/- 5,000 20/-</p>
----------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------

JAMES TOWNSEND, Medical Label Printer, EXETER.

# FORD, SHAPLAND & CO.,

MEDICAL LABEL & GENERAL PRINTERS, &c., 6 GREAT TURNSTILE, LONDON, W.C.

Will be pleased to forward Specimens and Prices on application, post free.

NEW TINTED COUNTER BILLS, Printed in Two Colours.

CHEMIST'S COUNTER BILLS,

On GOOD WHITE PAPER, at LOWEST PRICES ever offered.

**10,000 CROWN 8vo. BILLS** **12s. 6d.**  
(7 1/2 in. x 5 in.)

**10,000 DEMY 8vo. BILLS** **18s. 0d.**  
(9 in. x 5 1/2 in.)

ALL OTHER SIZES AT EQUALLY LOW RATES. SAMPLES AND PRICES ON APPLICATION.

LABELS of every description SLIP LABELS, 10,000 (10 kinds), 1s. per 1,000. PRICE LISTS, Pamphlets, Circulars, Billheads, Memorandums, Cards, and all kinds of Printing and Stationery required by Chemists at most Moderate Prices. STOCK SHOW CARDS, Gold on Black, Gilt Bevelled Edges, size 10 in. x 6 in. for various specialties; Samples 9d. each, post free. SOLE AGENTS for CHARLES RICHARD'S PATENT PERFECT TUBE CLEANER FOR INFANTS' BOTTLE TUBES, 6s. 6d. per gross; Carded, 8s. per gross.

AGENTS FOR REGISTRATION OF TRADE MARKS

DESIGNS FURNISHED IF REQUIRED.

**IT WILL PAY YOU** to send for Estimates to  
**BOWERS BROTHERS,** 89 BLACKFRIARS ROAD, LONDON, S.E.

10,000 Good Effective Handbills, 7 1/2 in. by 5 in. ... from 126 | Memorandums ... per 1,000 from 5/6  
Superfine Fly Leaf Note Paper ... per ream 8/- | Superfine Envelopes, name on flap ... per 1,000 4/ & 5/

A UNIQUE ADVERTISEMENT CHILDREN AND THEIR AILMENTS: HOW TO CURE. A BOOK FOR MOTHERS.

Seed, Powder, Cash, Prescription and Recipe Envelopes in all qualities and in every style of printing, Counter and Show Bills, Trade Catalogues, Prices Current Business Circulars, and Ornamental Advertising Books at most moderate charges. Specimens and Estimates free. Terms—Cash with Order.

DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.

Special Pamphlet prepared for efficient Advertising. New and Elegant Designs in Types and Ornaments for effective Advertising.

Introduced 1855.

## ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.]

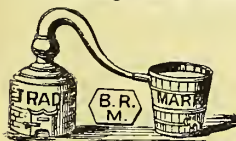
One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentis, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 6/ "	" Rosæ Virgin " 10/6 "
" Carui " 4/ "	" Flor. Sambuci " 8/6 "	" Virid. " 4/ "	

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Ag. Anethi, Anisi, Cinnam. Ver., Cassia, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice."

Wholesale Agents: HEARON & CO., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR. B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.



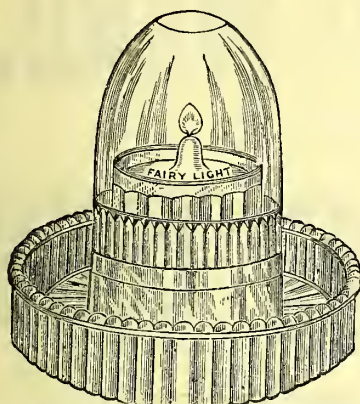


# PATENT "FAIRY" LAMPS and "FAIRY" LIGHTS.—SAML. CLARKE, Patentee.

TRADE MARK FOR LAMPS, "FAIRY" STAMPED ON.

TRADE MARK FOR LIGHTS, "FAIRY" ON  
EACH LAMP AND LIGHT.

PRICES ON APPLICATION.



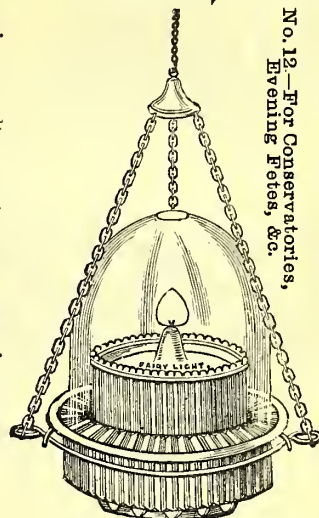
No. 17.—FLOWER CIRCLE.



"FAIRY"  
LIGHT.



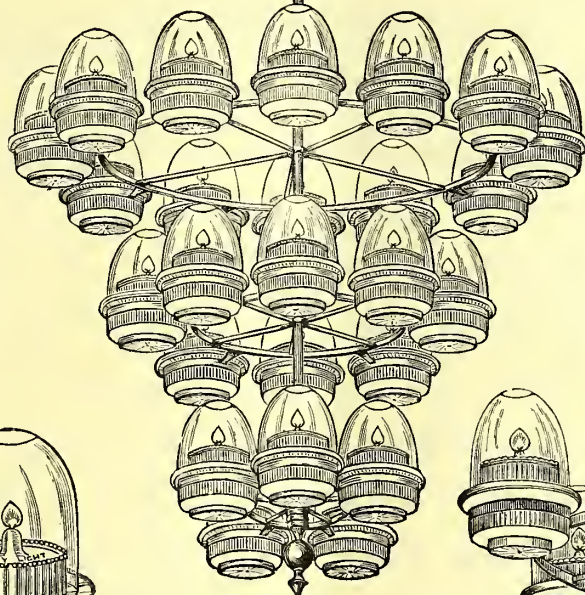
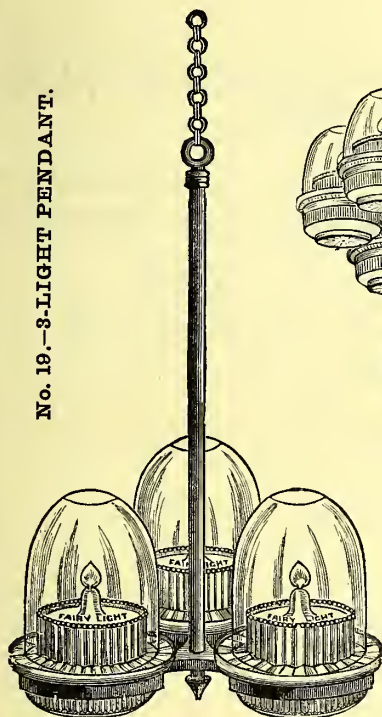
"FAIRY" GLASS.



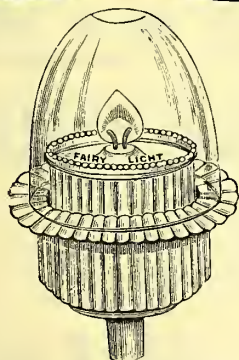
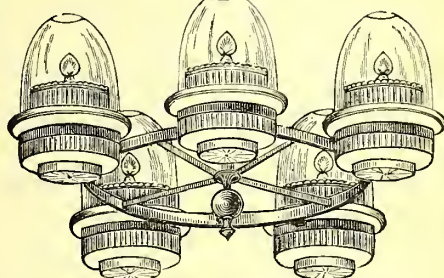
No. 12.—For Conservatories,  
Evening Fêtes, &c.

No. 20.—5-LIGHT PENDANT.

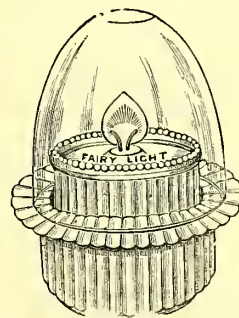
No. 19.—3-LIGHT PENDANT.



No. 22.  
25-LIGHT CHANDELIER.



No. 14.



No. 13.

N.B. See that the  
name "Saml. Clarke  
Patent & Trade Mark"  
Fairy" is on every  
Lamp and Light.

Patented, and Trade Marks Registered, in Great Britain, France, Germany, Belgium, Spain, Austria, Russia, the United States, and all the Australian Colonies.

MANUFACTORY—CHILD'S HILL, LONDON N.W.

Show Room : 31 Ely Place, Holborn Viaduct, E.C. America : Pyramid & Fairy Light Manufactory, Newark, New Jersey.



**WAND.** SPECIAL AND IMPORTANT. **WAND.**

THE  
**LARGEST MENTHOL CONE**  
**IN THE TRADE.**

*EVERY CONE GUARANTEED OF PURE MENTHOL.*

WHOLESALE PRICE

The Full 2/ size Cones, in Screw Bottles, to Retail at 1/...	6/	per dozen.
The Full 2/ size Cones, in Purple Cases	„ „	... 4/6 „
Usual 1/6 Cones, in Screw Bottles	„ „	... 5/ „
Usual 1/6 Cones, in Purple Cases	„ „	... 4/ „
Usual 1/ Cones, in Screw Bottles, to Retail at 6d.	... ..	4/ „
Usual 1/ Cones, in Purple Cases	„ „	... .. 2/8 „
Large 6d. Cones, in Screw Bottles	„ „	... .. 3/6 „
Large 6d. Cones, in Purple Cases	„ „	... .. 2/5 „

**ASK FOR AND SEE YOU GET THE LABEL OF S. WAND,**  
**CHEMIST, LEICESTER, ON EACH BOTTLE OR CASE.**

EXPORT WHOLESALE AGENTS:

GRIMWADE, RIDLEY & Co., Melbourne, Brisbane, &c.; ROCKE, TOMPSITT & Co., Melbourne; LYNCH & Co., London and Melbourne; BUTLER & CRISPE, MAY, ROBERTS & Co., MACE & HALDANE, F. NEWBERRY & Son, London.

**WAND.**

*The above Prices are subject to  
 fluctuations of the Market.*

**WAND.**



# SUPPLEMENT TO "THE CHEMIST AND DRUGGIST."

SATURDAY, FEB. 19, 1887.

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Telephone Number,  
1852.

## Advertisers' & Buyers' Reference List, AND INDEX TO ADVERTISEMENTS.

TELEGRAPHIC ADDRESS—  
**CHEMICUS**  
**LONDON.**

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<b>AERATED AND MINERAL WTS</b> Asculap Apollinaris (Hunyadi, Fried- richshall, and Apollinaris) Barnett and Foster Bromley and Co. (Woodhead Spa) Carter, H. W., & Co. (Ginger Ale Essence) Chemists' Aerated Waters Association Durrant, Geo. & Co. Ellis (Rathin) Hassall and Co. (Citric Acid, Phospho) Hay, W. (Hop Ale Essence) Hunyadi Janos Ingram and Royle (Mineral and Vichy, Sauerbrunnen, Carlsbad) Jewsbury and Brown Meadowcroft, W. Mills and Co. (Bonne) Monterrat Schweppe and Co. Taylor, T. and F. J. Vichy Thermal Williamson, W. H. (Wntdrnk) [See GINGER ALE.]	<b>DITTO PLANT</b> [See SPONGES AND ESSENCES.] Barnett and Foster Brady and Hinchliffe Bush, W. J., & Co. (Foam Producer, &c.) Favarger, H. Guere Freres Meadowcroft, W. Tyler, Hayward, and Co.	<b>AGENCIES ABROAD</b> Cocking (Japan) Drysdale, J. W., and Co. Eisner and Mendelson (Phila- delphia) Evans, Sons and Mason (Canada) Felton (Melbourne) Fougera (New York) Hormusjee Ruttonjee (Bmby) Kempthorne (Nw Zealand) MacNaughtan (New York) Mayhew, E. (Wstn. Australia) Phillips and Co. (Bombay) Prosser, E., and Co. (Sdny) Roberts (Paris, &c.) Rocke (Melbourne) Sharland & Co. (Auckland N. Z.) Shirreffs and Co. (Allahabad) Sullivan and Fulton Symes and Co. (Simla)	<b>MAY, Roberts (Water-bath)</b> Orme (Scientific) Perken, Son and Rayment (Scientific) Rothermel, Paul (Vinegar) Wolters, Otto (Balances)	<b>BLACKING</b> New Military Blacking Com Jamieson and Co.	<b>BOTANIC BEER</b> Newball and Mason
<b>ACETIC ACID</b> Dunn and Co. Hirst, Brooke and Hirst Lindsey and Co Morris and Callard (Salts)	<b>ALKALOIDS</b> Howards and Sons (Cinchona) Smith, T. and H.	<b>APPARATUS</b> Bracher & Co. (Automatic distilling) Kwoules, J. (Balances) Maud, W. R.	<b>BANK</b> Birkbeck Bank Bowlard and Co. Ke n, H., and Son Wo ley, Sons and Co.	<b>BEEHIVE &amp; HONEY</b> Bowlard and Co. Ke n, H., and Son Wo ley, Sons and Co.	<b>BOTTLE CAPS</b> Hunt, W. F., and Co.
<b>AMMONIA</b> May and Baker	<b>ANALYSIS</b> Rait, G. L., F.C.S., &c.	<b>BOOKS</b> Bailey, J. Churchill, J. & A. Coffin's, Dr. Longmans, Green & Co. Southall Bros. & Barclay	<b>BICARB. SODA</b> Gaskell, Deacon and Co. Howards & Sons May and Baker	<b>BISMUTH PREP.</b> Hewlett and Sons Howards and Sons May and Baker Sellers, J.	<b>BOTTLES</b> Barnett and Foster Brady and Hinchliffe Broadbent & Co. (Stoppers) Brooks, Peel (Perfumery) Ginsburg Apothecaries Co. Harris, E. A., and Co. Isaacs and Co. Kilner Bros. Lang, Jones, and Jules Lynch and Co. (L.M.) Brand) Morrison, R., and Co. Poth Thompson, Millard and Co. (Feeding) Toogood Vallet



**BOXES**

Austin and Co. (Cardboard)  
Ayrton and Saunders (Willow)  
Irvin and Sellers  
Metz, Paul (Pine and Willow)  
Robinson and Sons (Pill and Insect Powder)

**BROMIDIA**

Battle and Co.

**BRUSHES**

Dukas and Co.  
Goodall, H. A., and Co.  
("Stands")  
Newbery and Sons

**BUTTER COLOUR, &c.**

Bunsen, Benson and Co.  
Bush, W., and Son (Marl-  
goldine)  
Meyer and Henckel  
Tomlinson and Hayward

**CAMPHOR**

Howards and Sons  
Keene and Ashwell (Homoeo-  
pathic)

May and Baker  
Murray, Sir James (Fluid)

**CAPSULES**

Betts and Co. (Metallic)  
Cascara Sagrada  
Denoual, J. (Medicinal)  
Duncan, Flockhart and Co.  
Hooper, B., and Co.  
Metz ("Acme" Brand)

**CARMINE**

Bush, W. J., and Co.  
Sellers

**CASTOR OIL**

Allen and Hanburys

**CATALOGUE**

Evans, Sons and Co. (Price  
Current)  
Maw, S., Son and Thompson  
(Price Current)  
Newbery and Sons

**CEMENT**

Faulkes  
Kay (Coaguline)

**CHALK PRECIP.**

Dunn and Co.  
Levermore, Aug. and Co.

**CHEMICALS**

Bernstein Vogt (Fine)  
Bramwell, E., and Son  
Bush, W., and Co.  
Dunn and Co.  
Fletcher, Fletcher & Stevenson  
Gaskell, Deacon and Co. (Bi-  
carbonate of Soda)  
Howards and Sons (Pharma-  
ceutical)  
Lindsey, C. R., and Co.  
May and Baker  
Morris, Callard, and Co.  
Petri Bros.  
Sumner, R., and Co.  
Smith, T., and H.  
Typke and King  
Walker, Troke and Co.  
Wink, J. A., and Co. (Fine)  
Zimmermann, A. and M.

**CHEST PROTECTRS**

Barclay and Sons  
Evans, Sons and Co.  
Haywood, J. H.  
Newbery and Son  
Thompson Millard & Co.  
Toogood, W.

**CHLORATE OF**

**POTASH**  
(Compressed Tablets)  
Burroughs, Wellcome and Co.  
Hooper, B., and Co.

**CHLORODYNE**

Blyton-Bage and Co. (Twem-  
low's)  
Davenport (Browne's)  
Towle, A. P.

**CHLOROFORM, &c.**

Duncan, Flockhart  
Macfarlan, J. H.  
Petri Bros.  
Smith, T., and H.  
Wink, J. A., and Co., Ltd.  
Zimmermann

**CITRIC ACID**

Hassalls (Phosphin)

**COCAINE**

**HYDROCHLOR.**  
Howards and Sons

**COCOA & CHOCOLTE**

Cadbury  
Fry (Malted)  
Richards, J. M. (Delacres)

**COD-LIVER OIL**

Allen and Hanburys  
Banner, E. R.  
Burroughs, Wellcome  
Burgoyne (Peptelaine)  
Hertz & Collingwood  
Lofoden-Cod Liver Oil Co.  
Smith, T. J.  
Southall Bros. and Barclay  
Woolley, Sons and Co.

**COFFEE**

George and Welch (Dandelion)  
Symington and Co. (Coffee  
Essence)

**COLLAPSIBLE****TUBES**

Brooks, H., Peel and Co.

**COMPRESSD MDCMS**

(Dr. Koch's)  
Allen and Hanbury's  
Burroughs, Wellcome and Co.  
Hooper, B., and Co.  
Leo's Tablets  
Newbery and Sons

**COMP. POWDER**

Raines and Co. (Essence of)

**CORN CURES**

Robinson, B.  
Young's

**COTTON WOOL**

Robinson and Sons (Absorbent)  
Sanger, J., and Sons

**DENTIFICES**

Beddard, J.  
Jewsbury and Brown  
Martin, J. W. (Rozallum)  
Newber, and Sons  
Rimm el  
Sutt'n, O., and Co.  
Thompson and Capper  
Woods, W. (Arecia Nut)

**DENTISTRY**

Jones, Dr. C. H. (Mechanical)

**DISINFECTANTS**

Condy and Mitchell  
Government Sanitary Co.  
National Chemical Co.  
Sanitas  
Suthall (Germicide)  
Steele & Co. (Chloride of Lime)

**DOG MEDICINES**

Spratts (Patent)

**DRUGGISTS' SUP.**

Ayrton and Saunders  
Bourne, Johnson and Latimer  
Evans, Lescher and Womb  
(Hawley's Counter Adjuncts)  
Evans, Sons (Savers)  
Lynch and Co.  
Maud, W. R.  
Maw, S., Son and Thompson  
May, Roberts and Co.  
Newbery, F., and Sons  
Petition, Geo.  
Sanger and Sons  
Savars  
Schutze and Co.  
Thompson, Millard  
Toogood

**DRUMS, CANS, &c.**

Noakes and Co.

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Jamieson and Co.  
New Military Blacking Co.

**DYES**

Ayrton and Saunders  
Crawshaw, E., and Co.

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Farina, J. M. (Gegenüber)

**ELECTRIC APPAR**

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Orme and Co.  
Colthurst & Harding (Electric  
Light Oil)

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Elliman, Sons and Co.

**ENEMAS**

Ingram and Son  
Lynch and Co.  
Sanger and Son

**ENGRAVERS**

Barker, W., and Son

**ESSENCES, FRUIT****AND SOLUBLE**

Bratby and Hinchliffe  
Burgoyne, Burdidges and Co.  
Bush, W. J., and Co.  
Carter, H. W., and Co.  
Hay's Soluble Lemon, &c.  
May and Baker  
Meadowcroft, W.  
Thompson, H. A., and Son  
Typke and King  
Vogt, G.  
Woolley, Sons and Co.

**ESSENTIAL OILS**

Banner, E. R. (American  
Peppermint)  
Bernstein and Vogt  
Bush, W. J. (Lemna, &c.)  
Cocking (Japan Peppermint)  
Fletcher (Eucalyptus)  
Hay, W.  
Lambert, S. and Co.  
May and Baker  
Meadowcroft, W.  
Rocke, Tompsett (Eucalyptus)  
Sumner and Co.  
Stallman and Fulton  
Symes (O. Lavander)  
Vogt, G.  
Wright Brothers  
Wright, Layman and Umney

**ETHER**

Duncan, Flockhart and Co.  
(Chloric)  
Howards and Son  
May and Baker  
Robbins

**EXTRACT, MEAT**

Brand and Co.  
Burgoyne, Burdidges and Co.  
Evens, Sons & Co.  
Coleman & Co.  
Liebig Co.  
Mason, Geo., and Co. (Lim.)  
Poths (Leube Rosenthal)  
Richards, J. M. (Delacres)

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Burgoyne, Burdidges  
Evans, Sons & Co.  
Fletcher, Fletcher & Stevenson  
Hearon, Squire and Francis  
Potter and Clarke

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Chubb, J., and Co. (Violet)  
Foulkes

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Hearn, E. A., and Co. late  
Hearn, Riddell and Co.)  
Kliner Bros.  
Lang, J. and J.  
Maw, Son and Thompson  
May Roberts and Co.  
Savars  
Thompson, Millard  
Toogood, W.

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Doulton and Co.  
Dunlop, Mitchell and Co.  
Fainton Filter Rapid  
Mawson Swan, and Weddell  
Slack & Brownlow  
Silicated Crbn Filtr Co.

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Benger's Pancreatic  
Burroughs, Wellcome (Pepton-  
ising)  
Goodall, Backhouse and Co.  
Hearon, Squire (Malted)  
King, Fredk., and Co. (Soups)  
Lazenby, E., and Son  
Mason, Geo., and Co. (Lim.)  
Nestle, H.  
Southall Bros. and Barclay  
Sumner, R., and Co. (Angels')  
Van Abbott (Diabetic)

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Robinson, G.

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Mumford, G. S.  
Rouse and Co.

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Maud, W. R. (Self-acting)

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Hay, W.  
Meadowcroft, W. (Essence of)  
Mills, E. M.  
Schweppe (Dry)  
Sumner, R., and Co. (Essence)

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Fink  
Martindale, W. (Nitro-Glyce-  
rine Tablets)  
Price's Candle Co.

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Bush, W., and Co.  
Evans, Sons  
Wright Layman and Umney

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Duncan, Flockhart  
Stevens, P. A. (White)

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Capper, W. B. (Crindone)  
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James and Co.  
Morphy, E. (Walnut Pomade)  
Towle Toilet Cream (Thorn-  
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Newball & Mason (Ext. of Herbs)  
Peck and Velsor  
Potter and Clarke

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Bristol and W. of England  
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Keene and Ashwell  
Leath and Ross  
Thompson and Capper

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Hay, W.

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Fellows  
Fletcher, Fletcher and Steven-  
son  
Typke and King  
Yestman, F. J.

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Evans, Sons and Co.  
Maw, S., Son and Thompson  
Spireton, The, Co., Lim.  
Toogood, W.

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Bewley and Draper  
Duncan, Flockhart

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Steiner and Co.  
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Tyrer, P.

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Randall and Son  
Raines and Co. (Rose)  
Warrick Brothers

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Dinneford (Fluid)  
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Christian, J.  
Hooper, W., and Co.  
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Day and Sons

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Boehm, J. (Charms)  
Cocking and Co.  
Dundas, Dick and Co.

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Bennett (Manna Cake)  
British College (Morris's)  
Burgess, E. (Lion Ointment)  
Carter's Liver Pills  
Crouch, F. B. (Wafers)  
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Fenning's (Powders)  
Fletcher's (Neuralgic Pills)  
George and Welch (Liver)  
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Munday, J. (Injection Day)  
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Raines (Composition Ess.)  
Richards, J. M. (American, &c.)  
Roberts (Foreign)  
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Savars  
St. Dalmas (Bronchial, &c.)  
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White, A. J., Lim. (Kaskine)

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**FANCY SOAPS.**  
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Crown Perfumery Co.  
De Pass and Co. (Beach  
Blossom)  
Durrant, Geo.  
Ewen (Soaps)  
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Maw, Son and Thompson  
Newbery and Sons  
Oshorne, Bence and Cheesman  
Patey and Co.  
Raines and Co. (Cachous)  
Rowland and Son (Various)  
Sainsbury, S. (Lav. Water)  
Sanger and Sons  
Southall Bros. and Barclay  
Treaditt, H. P.  
Warrick Brothers  
West, T. (Oleum Mon.)  
Woolley, Sons and Co. (Powder)  
Wright, W. V., and Co. (Soap,  
Coal Tar)



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**PEPSINE, &c.**  
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 Fletcher, Fletcher and Steven-  
 son  
 Keene and Ashwell  
 Newbery (Ingluvir)  
 Savory and Moore (Pancreat)  
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 Warner and Co. (Ingluvir  
 Zimmermann

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 Robbins

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 Duncan, Flockhart  
 Evans, Sons and Co.  
 Fellows (Hypophosphites)  
 Fletcher (Liquor, for Syrups)  
 Heaton, Squire and Francis  
 Hewlett and Sons  
 Hirst, Brooke and Hirst  
 Hooper, B., and Co.  
 Howards and Sons  
 Key Bros.  
 Keith (Conc. Tinctures)  
 Martindale (Nitroglycerine)  
 Sellers, J.  
 Southall Bros.  
 Sumner, R., & Co.  
 Symes and Co.  
 Walker, Troke  
 Wink, J. A., and Co.  
 Woolley, Sons  
 Wyleys (Various)

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 Perken, Son and Rayment

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Pindar, J. W.

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 feins)  
 Beecham, Thomas  
 Hooper, Dr.  
 McKesson and Robbins (Ovoid-  
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 Morrison  
 Newbery  
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 Warner, W. R. (Coated)  
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 Evans, Sons and Co.  
 Evans, Sons and Mason  
 Heaton, Squire and Francis  
 Hewlett and Son  
 Hirst, Brooke and Hirst  
 Pearson, C. F., and C  
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Pocock & Co. (Foreign)  
 Potter and Clarke (American  
 Kalmes and Co. (sc.)  
 Southall Bros. and Barcla)  
 Sumner, R., and Co.  
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 Typke and King  
 Walker, Troke and Co.  
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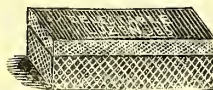
Coleman and Co. (Wine)  
 Durrant, G. (Orange)  
 Hirst, Brooke and Hirst  
 Ingram and Royle (Orange)  
 Metcalf, Theo., and Co. (Coca  
 Wine)  
 Robinson, B. (Orange)  
 Williamson, W. H. (Orange)

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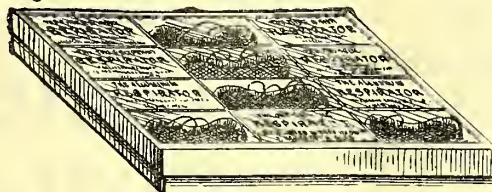
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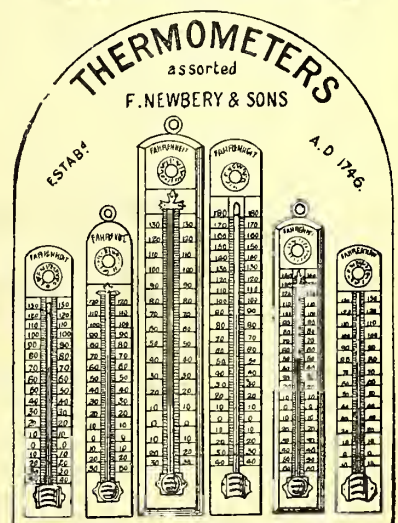
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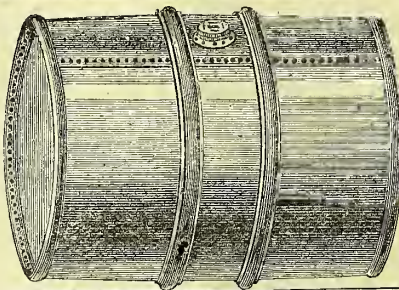
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IRON BARRELS,

CAPACITY 40 TO 120 GALLONS  
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These large Iron Casks, similar to sketch, can be handled with equal facility to wooden barrels, and, owing to their strength and durability, can be used over and over again for an indefinite period. They are perfectly liquid tight, being tested at a very high air pressure, and, unlike wood, do not absorb any of the contents. They are all fitted with interchangeable screw bungs, and can also be fitted with screw plug in head, for draw-off tap.

They are specially adapted for all kinds of Chemical Products, Sulphuric Acid, Glycerine, Spirits, Oils, Turpentine, Petroleum, Benzoline, Varnishes, Tar, Naphtha, Mineral Extracts, and Inflammable Liquids of every description.

We are making them in three qualities, "Black Iron," "Lead Coated," and "Tinned."

PRICE LIST ON APPLICATION.

**A QUICK WAY TO MAKE MONEY**

**25/- of A1 BRAND MENTHOL will realise 48/-,**  
Or a Profit of 23/- which is over 90 per cent.

Send a cheque for 25/- and I will forward either of the following, together with a HANDSOME GLASS-FRONTED SHOW-CASE and ROUND HANDBILLS.

Order as Parcel	PARCEL A	PARCEL B	PARCEL C	PARCEL D	Illustrated Price List post free on application.
A B C or D.	4 dozen 6d.	3 dozen 1s.	8 dozen 6d.	4 dozen 1s.	
	2 " 1s.	2 " 6d.			

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Of all Wholesale Houses, or direct from **ARTHUR W. SHIRLEY** (J. G. Shirley), 30 Paternoster Sq., London, E.C.

**BURROUGH'S**  
Best  
Distillery,  
Cale St.

**Methylated**  
CHELSEA,  
S.W.

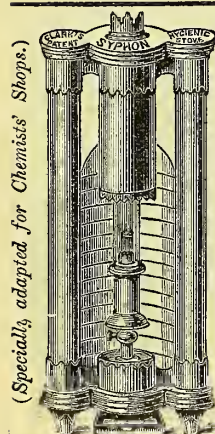
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AT LOWEST PRICES.

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**Best**

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FINEST WOOD NAPHTHA.

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LONDON, S.W.



THE  
**"SYPHON"**  
(REGISTERED TITLE)  
(CLARK'S PATENT)  
**GAS HEATING STOVES.**

NO FLUE REQUIRED.

No smoke. No smell. No dirt or trouble. No danger. All sulphurous vapours are condensed inside the Stoves, and passed off as a liquid into tray beneath. The ONLY SAFE ones for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Shops, Offices, Churches, Schools, &c. **BEWARE OF IMITATIONS.**

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**S. CLARK & CO., Patentees**  
(Late Hygienic Heating & Lighting Co.),  
Park Street Works, Islington,

**LONDON, N.**  
Agents: MAW, SON & THOMPSON, Aldersgate Street, London, E.C.

**Matthews's**  
**Fullers**  
**Earth.**

Used in the Royal Nurseries, and highly recommended by the Faculty; it protects the Skin from cold winds, chaps, &c., and preserves the Complexion.

6d. & 1s.  
Boxes.

SOLD BY ALL THE WHOLESALE HOUSES.

**ROUSE & CO., 12 WIGMORE STREET, LONDON.**



# LANOLINE.

Lanoline is the fat natural to the hair and skin, and is absorbed by these at once. It is the best basis known for ointments, salves, &c. Of desirable consistence, it does not melt below body heat, and does not "run" like ordinary ointments. Being homogeneous, and devoid of hard crystalline bodies and free from acids, it is soothing and acceptable in the most irritable conditions of the skin. It is miscible with water and all medicaments indifferently, is preservable, slightly tenacious and adhesive, and perfectly bland and soothing.

**Price in 1-lb. Tins, 3/6; 7-lb. Tins, 3/4 per lb.**

*A Descriptive Pamphlet and Specimen of Lanoline will be sent post free to the Trade upon request.*

## LANOLINE TOILET SOAP.

(In Preparation.)

Ordinary soaps often cause pimples, blotches, and sores on the face, and prevent eruptions already formed from healing. They remove the fat and dry the skin, so that it becomes hard, inelastic, and rough, and loses its natural colour.

Lanoline Toilet Soap is being made with *Lanoline*. Lanoline being the natural fat of the skin, is acknowledged by dermatologists to be the very best preservative of this tissue, restoring its soft, pliable, and elastic nature, and healthful gloss. The process of its manufacture precludes the possibility of adulteration, as with resin, &c., and affords a most superior product.

**Put up in Jars, price 20/- per dozen.**

## LANOLINE COLD CREAM.

This is emollient, protective, and healing. It supplies the skin with a "cream" natural to it, and is highly praised for abrasions, mucous patches, herpes, chapped hands, roughness and hardness, &c.

**Put up in Jars, price 20/- per dozen.**

## LANOLINE POMADE.

Hair anointed with this presents no shiny greasy gloss, and does not stain the hat or anything else that comes in contact with it, for Lanoline Pomade is absorbed at once. It soon makes the hair smooth, silken, and strong, and after employing it a little time the scalp becomes perfectly healthy and free from dandruff. In alopecia it has recently been commended in medical journals.

THE ABOVE PRICES ARE SUBJECT TO USUAL DISCOUNT. SUPPLIED BY THE WHOLESALE TRADE.

**BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.**



## REDUCTION OF PRICE.

Burroughs, Wellcome &amp; Co.

## TABLOIDS

BY COMPOUND

## STROPHANTHUS.

*Each Tabloid contains 2 minims of the Tincture of Strophanthus prepared of the strength of 1 in 20, and from the seeds only.*

Strophanthus increases the power of the heart, but does not contract the arterioles like digitalis.

Dose, one to four Tabloids, to be swallowed with water.

Snow Hill Buildings, London

Our Tincture of Strophanthus was the first known to commerce, and has always been prepared from the seeds only and with the greatest care. We have not heard of a single fault being found with it.

In compliance with the advice of Professor Fraser we now prepare the Tincture of the strength of one in twenty, submitting a sample of every lot for his approval, and we are willing to receive back from any chemist having the former strength of Tincture in stock his supply of same in exchange for the present make, we giving such chemist two bottles of this for one bottle of the old strength.

Burroughs, Wellcome &amp; Co.,

Tincture

## STROPHANTHUS

*Prepared from the fully developed seed only, and according to Prof. Fraser's new (1887) formula, in proportion of 1 in 20. Dose, 2 to 10 drops, dissolved in a wineglass of water at the time of administration.*

SNOW HILL BUILDINGS, LONDON.

Tincture, in  $\frac{1}{2}$ -oz. bots., 12s., and 1-oz. bots., 18s. } Subject to usual discount. Can be ordered per doz. respectively.

Tabloids, in bots. containing 100, 27s. per doz. } Please specify Burroughs, Wellcome &amp; Co.

Pods are sold at 2s. 6d. per oz.; Select Seeds at 10s. per oz.

## DUNCAN, FLOCKHART &amp; CO.

Chemists to the Queen, EDINBURGH,

Desire to call the attention of the Trade to their

## CASCARA SAGRADA CAPSULES.

Each Capsule equal to half a teaspoonful of Ext. Cascarae Liq. B.P. The chief drawback to the use of this valuable drug—its unpleasant bitterness—is entirely obviated by these Capsules.

Wholesale Agents—WM. EDWARDS &amp; SON, 157 Queen Victoria Street, LONDON.

## OXYGEN.

PURE OXYGEN, obtained from the atmosphere, for Inhalations and other Medical purposes, is now supplied in large or small quantities, in Cylinders, forwarded to any address, by

BRIN'S OXYGEN CO., LTD., CONNAUGHT MANSIONS, WESTMINSTER

PRICE 4d. PER CUBIC FOOT.

DISCOUNT TO THE TRADE.

## LOOF AHS.

MAY, ROBERTS &amp; CO. beg to inform the

Trade that they have just received a very fine parcel—from 15 to 18 inches in length—which they will be happy to supply at 6s. per dozen, cut or uncut, as required.

9 CLERKENWELL RD., LONDON, E.C.





ESTABLISHED 1859.

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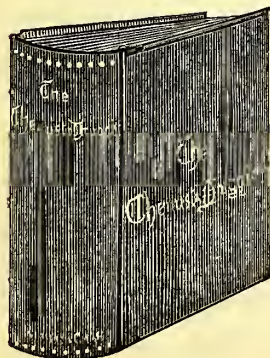
Supplied only to persons connected with the Trade.

For Australasian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

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SOUTH AFRICAN chemists receiving a free copy of this number of THE CHEMIST AND DRUGGIST are invited to subscribe. For their convenience we have arranged with Messrs. J. T. Pocock & Co., of Cape Town, to receive remittances on our behalf. The annual subscription, we may add, is 10s., payable in advance, and for this we send a year's supply of the journal and a copy of the forthcoming Diary, all post-free.



THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for en-

closure, nor by any of the carriers, as in the latter case we have to pay for booking.

COMPETITION No. 9.—We have received a considerable number of entries for this competition, and now remind those who intend to take part in it that Wednesday next is the last day on which we can receive post-card drafts, printed handbills, or other forms of circulars, in accordance with the announcements previously made. The result of the competition is certain to be useful, and will, we trust, give fresh ideas to those who cultivate trade.

THE REDWOOD TESTIMONIAL FUND has been closed, and a net result of 738l. is reported. At the request of the committee we publish a full list of the contributions to this fund. It has been decided to devote about 600l. to the foundation of the "Redwood Scholarship," and to spend the balance for a portrait of the Emeritus Professor, to be held by the Pharmaceutical Society.

THE SECRETARY OF THE CHEMISTS' TRADE ASSOCIATION reports contributions exceeding 400l. to the special fund raised to maintain the Association in working order to the close of the present financial year.

THE Hop Bitters cases were mentioned in court on Thursday, and we report on page 236 what took place. Mr. Clarke has secured another injunction against a chemist who had used the title "Blood Mixture," and who did not care to fight the question. Mr. Myers, of cattle-spice fame, has been defeated in an action at the Liverpool assizes, the judge commenting severely on his method of business.

DR. DE VRY, C.I.E., the eminent Dutch quinologist, sends us an interesting communication in reply to a statement recently made by Dr. Paul. The latter had quoted Dr. de Vry as authority for an assertion that Pelletier's original quinine sulphate contained a considerable quantity of cinchonidine. Dr. de Vry, however, declares that he never said so, and judges, moreover, from his analysis of some of the same lot of bark as that on which Pelletier worked, that his sulphate of quinine could not have contained more than 3½ per cent. of sulphate of cinchonidine.

DR. GEORGE WATT, C.I.E., who acted for the Indian Government as Superintendent of the Economic Court of the Colonial and Indian Exhibition (Indian section), communicates an interesting note on Indian hemp, supplementary to the statement made by him last November. Dr. Watt's suggestion that only the Bengal "ganga" should be used in medicine is a valuable one. There are few official drugs which are so uncertain in therapeutics as Indian hemp; but this uncertainty may, it appears, be entirely removed by using a drug which has been carefully cultivated. The price of Bengal ganga may be prohibitive, but the whole subject should be considered by authorities.

WE have pleasure in printing an interesting address by Professor Attfield on the "Laws of Nature in Relation to Health."

MR. W. F. HAYDON, the secretary, and Mr. Henry Glaisyer, the solicitor to the Chemists' Trade Association, have sent replies to the letter we published last week from Mr. A. H. Allen, of Sheffield, the president of the Society of Public Analysts.

MASTERS AND ASSISTANTS continue their lively discussion in reference to their respective characters and to the alcoholic capacity of some of the latter.

THE most notable features in the drug and chemical markets are the extreme scarcity of carbolic acid, an advance in bleaching powder, and increased firmness in opium. Reports from Norway confirm those we have already published of the failure, so far, of this year's cod fishing. The cinchona sales this week have hardly realised anticipations, and quinine tends flatter. Our special report from Buda Pesth indicates a probable scarcity of belladonna.



## The Chemists and Druggists' Trade Association of Great Britain.

LIST of Donors of 1*l*. and upwards to the fund being raised to carry on the work of the Association until June 30, next:—

Total amount received up to date ...	£	s.	d.
Southall Bros. & Barclay, Birmingham ...	10	0	0
Baiss Bros. & Co., London... ..	5	5	0
Barron, Harveys & Co., London ...	5	5	0
Barron, Squire & Co., London ...	5	5	0
British and Colonial Druggist, London ...	5	5	0
Burgoyne, Burbidges & Co., London ...	5	5	0
CHEMIST AND DRUGGIST, The Proprietors of The, London... ..	5	5	0
Davy, Yates & Routledge, London ...	5	5	0
Evans, Lescher & Webb, London ...	5	5	0
Evans, Sons & Co., Liverpool ...	5	5	0
Harris, Philip & Co. (Lim.), Birmingham ...	5	5	0
Harker, Staggs & Co., London ...	5	5	0
Hearon, Squire & Francis, London ...	5	5	0
Hill, A. S., & Son, London... ..	5	5	0
Hodgkinson, Prestons & King, London ...	5	5	0
Hodgkinsons, Stead & Treacher, London ...	5	5	0
Horner & Sons, London ...	5	5	0
Hull Chemists' Association (per C. B. Bell, Hull)	5	5	0
Summer & Co., Liverpool ...	5	5	0
Walker, Troke & Co., London ...	5	5	0
Woolley, Sons & Co., Manchester... ..	5	5	0
Wright, Layman & Umney, London ...	5	5	0
Wyleys & Co., Coventry ...	5	5	0
Clarke, Bleasdale & Co., York ...	5	0	0
Cross, W. G., Shrewsbury ...	3	3	0
Fox, W., & Sons, London ...	2	15	0
Battley & Watts, London ...	2	2	0
Battle, Son & Maltby, Lincoln ...	2	2	0
Burroughs, Wellcome & Co., London ...	2	2	0
Bush, Son & Co., Walworth ...	2	2	0
Evans, Gadd & Co., Exeter ...	2	2	0
Harrison, John, Sunderland ...	2	2	0
Jones, William, Birmingham ...	2	2	0
Meggeson & Co., London ...	2	2	0
Oldfield, Pattinson & Co., Manchester ...	2	2	0
Reynolds, Richard, Leeds ...	2	2	0
Thompson, H. A., & Son, London... ..	2	2	0
Tyrer, Peter, London ...	2	2	0
Drane, R., Cardiff ...	1	3	6
Mousley, W., Redditch ...	1	3	6
Bell, C. B., Hull ...	1	1	0
Curtis & Co., London ...	1	1	0
Earle, H., Hull ...	1	1	0
Friend, A., Greenock ...	1	1	0
Godfrey & Cooke, London... ..	1	1	0
Greenish, T., London ...	1	1	0
Kay Bros., Stockport ...	1	1	0
Lofthouse & Saltmer, Hull ...	1	1	0
Mottershead & Co., Manchester ...	1	1	0
Pattison, G., London ...	1	1	0
Raimes & Co., Edinburgh ...	1	1	0
Rogerson & Son, Bradford... ..	1	1	0
Anthony & Biss, Bedford ...	1	0	0
Bing & Son, Canterbury ...	1	0	0
Goodall, Backhouse & Co., Leeds... ..	1	0	0
Ive, W., London ...	1	0	0
Jones, W. C., London ...	1	0	0
Morris, G., London... ..	1	0	0
Pare, H. B., Bolton... ..	1	0	0
Parkinson & Sons, Burnley ...	1	0	0
Paterson & Son, Aberdeen... ..	1	0	0
Twemlow, R., Manchester ...	1	0	0
Woodcock, J., Birkenhead... ..	1	0	0

Office of the Association: W. F. HAYDON, Secretary.  
Birmingham, February 14, 1887.

MESSRS. BRACHER & CO., Wincanton, now make their "Desideratum" mixers of cast iron, the smaller sizes only being of the old form. In addition to this improvement, whereby the machines are greatly strengthened, the gearing is now placed between the mixer and the bench, and the outlet of the former is constructed so as to shoot the contents into the middle of the drawer. This is a decided advance over the older forms of the machine.

THE report of the directors of Brunner, Mond & Co. (Limited) states that, including the balance brought forward, the profit for the half-year ended on the 31st December was 115,849*l*. Interim dividends were paid on the preference and ordinary capital, and the directors propose a further dividend on the preference capital at the rate of 7 per cent. per annum, and a dividend on the ordinary capital at 20 per cent. per annum, writing 7,500*l*. off patents account, transferring 10,000*l*. to the reserve fund, and carrying 34,451*l*. forward.

PRICE'S PATENT CANDLE COMPANY (LIMITED).—The accounts show a profit for 1886 of about 55,500*l*. After deducting the dividends paid on the preference and ordinary shares in October, and appropriating 10,000*l*. for depreciation, and 940*l*. balance of expenditure on new fitting-shops and offices, there will remain about 28,500*l*., out of which the usual dividend is proposed on the preference shares, and of 12s. per share on the ordinary shares, making with the 8s. already paid a dividend of 1*l*. per ordinary 16*l*. share for the year. The amount carried forward will be about 8,500*l*.

RUNCORN SOAP AND ALKALI COMPANY (LIMITED).—The annual meeting of the shareholders of this company was held on Thursday, February 10, in the Law Association Rooms, Mr. A. P. Fletcher presiding. The report showed an available balance of 17,380*l*. 9s. 3*d*., which it was proposed to appropriate as follows:—Dividend, 15s. per share (over 3 per cent.), 9,000*l*.; balance carried forward, 8,380*l*. 9s. 3*d*.. The report also alluded to the large increase in the manufacture of soda ash by the ammonia process, and the fall in prices which had taken place in consequence. During the year plant for the ammonia-soda process had been erected at a cost of 14,000*l*.

SPIRONE.—Under this name Dr. John Francis Churchill who many years ago successfully introduced hypophosphites as remedies for pulmonary affections, has recently patented a compound to be used as an inhalant, which, he states, was made synthetically about twenty years ago, and has since been used by him in his private practice. All rights of the preparation have now been acquired by the Spirone Company (Limited), of 17A Duke Street, Manchester. Spirone is a water-white spirituous solution, possessing an ethereal odour. It is used with a spray-producer of special construction, and is quite pleasant in use. If spirone attains popularity at all approaching to Churchill's hypophosphites, its properties and uses will become familiar to many chemists.

### DIARY FOR NEXT WEEK.

#### *Tuesday, February 22.*

Public sales of isinglass, at the Commercial Sale Rooms, Mincing Lane, E.C., at noon.  
Royal Institution, at 3 P.M. Professor A. Gamgee, M.D., F.R.S., on "The Function of Respiration."  
Public sales of drysalteries, at the Commercial Sale Rooms, Mincing Lane, E.C., at 1 P.M.

#### *Wednesday, February 23.*

Public sales of spices, at the Commercial Sale Rooms, Mincing Lane, E.C., at noon.  
Chemists' Assistants' Association, 103 Great Russell Street, W.C. Social at 9 P.M.

#### *Thursday, February 24.*

Public sales of drugs, at the New Corn Exchange, Mark Lane, E.C., at 11.30 A.M.

#### *Friday, February 25.*

Royal Institution, at 9 P.M. Captain W. de W. Abney, R.E., F.R.S., M.R.I., on "Sunlight Colours."

#### *Saturday, February 26.*

Royal Institution, at 3 P.M. The Right Hon. Lord Rayleigh, M.A., F.R.S., M.R.I., on "Sound."  
Football match. P.F.C. v. Shaftesbury, at Primrose Hill.



## Metropolitan Reports.

**THE EARLY CLOSING BILL.**—The United Society of Shop Assistants organised a demonstration in Trafalgar Square for Sunday last, and a considerable body, headed by a brass band, marched from Clerkenwell Green to the Square. The demonstration was greatly interfered with by a large assemblage of roughs, but was considered to be successful.

**WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY.**—On St. Valentine's day the principals, staff, and students of the above college journeyed to Kew to celebrate the birthday of Mr. G. S. V. Wills, the founder of the institution, and to present him with a testimonial in honour of the event. The afternoon was spent in the Botanic Gardens and in the football field, where a match between North and South was played, which, after a somewhat exciting game, was won by the North. After a substantial tea Mr. Dunn, in a felicitous speech, proposed the health of Mr. Wills, and on behalf of the students presented him with a handsome set of fish knives and forks. Mr. Dunn referred to the good feeling which at all times had existed between the students and the teachers, and pointed as a result of this to the thousands of students who had passed their examinations from the college since its foundation by Mr. Wills in 1872. Mr. Wills in reply said he regarded this present, like others that from time to time he had received, as a mark of the gratitude and appreciation shown by the students to himself, and that in the future, as in the past, every effort of his would be put forward to maintain the present efficiency of the college. In concluding he wished success to those students presenting themselves for examination this month. Toasts followed to Mr. Wootton and the demonstrators, and the evening was wound up with a lively programme of music and songs.

**CARBOLIC ACID BY MISTAKE AGAIN.**—On Tuesday last Mr. Carter, coroner for East Surrey, held an inquest at West Norwood on the body of Edward James Wright, aged 59 years, a retired grocer, lately residing at Abercorn House, Thurlstone Road, West Norwood. Benjamin John Edward Wright, a medical student, and son of the deceased, deposed that the latter had enjoyed good health, and was a man of good mind. For some time past he had been worried about money affairs, he having sold his business at Clapham last June for 25,000*l.* to a limited liability company, and of that sum he had only received 5,000*l.*, the company having failed. Of late he had been very sleepless, and took chloral as a sleeping draught, which he kept in a bottle in a cupboard in his bedroom. The previous Thursday morning witness found his father lying on the floor by the bedside. Subsequently a tumbler containing a few drops of carbolie acid was found on the dressing-table, and also a bottle half full of the same acid was found in the cupboard alongside the bottle of chloral. In his opinion his father took a dose of carbolie acid in mistake for the chloral. He had never attempted or threatened to destroy his life, and witness did not believe that he had committed suicide, notwithstanding his monetary troubles. The jury returned a verdict of "Death from misadventure."

## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.*

### BIRMINGHAM.

**MESSRS. CHURCHILL & SON'S** premises are announced to be let at Lady Day. The proprietors, we understand, intend to carry on their business in premises opposite, and refuse to renew the lease of their present shop, as they consider the rent (400*l.* a year) too high.

**WANT OF SIMPLE PHYSIOLOGICAL KNOWLEDGE.**—An inquest was held on February 11 on the body of James Hol-

croft (37), watch-pinion maker. For some time deceased had suffered from rheumatism and Bright's disease. Two days previously he left home a little before eight to go to work, and while proceeding along Villa Street he was seized with a fainting fit and almost immediately expired, while persons who went to his assistance were holding his head up. Mr. Holdsworth, who had made a post-mortem examination, said death was due to heart-disease, which generally followed Bright's disease. In reply to the Coroner, he said holding a person's head up was the worst thing to do when he had fainted. The Coroner: In point of fact if there is a chance of the blood reaching the nerve centres and being withdrawn from the heart the person must be laid down and not propped up, or a contrary effect will be produced? Mr. Holdsworth: Yes. The Coroner: If people would read a little more about these things and less about football matches we should hear less of these cases. I am sick of preaching on these subjects, and shall shortly give up my chair to a younger man. I don't think that any coroner could retain his senses above a dozen years, so much idiocy does he hear during that period. A verdict was returned of "Death from natural causes."

**AN ASSAULT CASE.**—At the Aston Police Court, on February 11, Frederick Normansell, fish salesman, Pershore Road, Birmingham, was summoned for assaulting William P. Blythe, druggist, Lichfield Road, on January 26. Complainant said he was a member of the firm of Blythe Brothers, drysalters, of Lichfield Road, and on the day in question, when near the Aston Cross, the defendant came to him and said, "What have you been saying about me?" Witness replied that he did not know defendant, and that therefore he had not been saying anything about him. Normansell struck him twice in the face, and inflicted such injuries as necessitated witness receiving medical attention. Cross-examined witness admitted that at the instigation of a friend he had met the defendant at the "Bell" inn, where they had several drinks together. After they had been in the house a short time Normansell called him into the passage, and put a piece of paper into his hand. He found that it was a 5*l.* note, and after he had received it defendant and witness, with several other men, called at the Court Restaurant and had several drinks together, including a bottle of champagne. In reply to a question witness said he accepted the 5*l.* because he thought it would be proof that Normansell was in the wrong. The Bench thought there was no doubt Blythe received the money in settlement of the case. Counsel for the prosecution withdrew the summons, and the counsel on the other side said that had the matter been proceeded with he should have had a complete answer to the case.

### BOSTON.

**SUDDEN DEATH OF A CHEMIST.**—The death is announced of Mr. John Ashlin Thomas, pharmaceutical chemist, Market Place, Boston, a gentleman well known and greatly respected in the town. It appears that Mr. Thomas attended a committee meeting of the local Conservative Club on Wednesday evening, February 2, and returned home shortly after nine o'clock, to spend a few hours with some friends. He had for some time suffered from heart-disease, but on the evening in question he was apparently in excellent health. When retiring at twelve o'clock along with Mrs. Thomas, and while undressing, he fell down in a fit, and died before medical assistance reached him. An inquest was held on February 3, and from the evidence of Mr. F. H. Dodgson, Mr. Thomas's manager, and Dr. Pilcher, the medical attendant, it would appear that deceased was in the habit of taking a sleeping draught composed of chloral and bromide of potassium. It was supposed that this, considering the state of the deceased's heart, might have been the cause of death; but Mr. Dodgson explained that he had taken a much larger dose on the night previous, and from the fact that the dose had been taken only a few minutes before his death, his medical attendant could not say that it was connected with his death. The jury returned a verdict to the effect that deceased had died from syncope, the result of heart-disease. Mr. Thomas, who was in his forty-third year, was a son of the late Mr. J. H. Thomas, J.P., chemist, whose business he for a long time managed and carried on after his father's death. He passed the Major examination in 1865.



## DARLINGTON.

**LAUDANUM - POISONING.**—A draper's assistant named James Busfield, aged 33, died here on Monday from the effects of an overdose of laudanum which he had taken the previous evening in order to procure sleep. He went out for the laudanum on Sunday night, and got ninepence worth, two-thirds of which he swallowed. At an inquest held the next day the jury found that an overdose had been taken by misadventure.

## HUDDERSFIELD.

**EXPLOSION AT A CHEMICAL WORKS.**—On Wednesday last an explosion took place at the works of Messrs. Read, Holliday & Sons, chemical manufacturers, Turnbridge, Huddersfield, resulting in the injury of three men, one somewhat seriously. Messrs. Holliday make nitro-benzol, and in its manufacture they have stills and iron cisterns in a department to themselves. The cisterns number about twelve, and at one end are the stills. About 9.20 a loud explosion occurred, and though no explanation of the explosion has been given, three men were seriously injured, the shed took fire, and two of the iron cisterns burst.

## LEEDS.

**A SHUMAC TRANSACTION.**—At the assizes on the 15th and 16th instant, E. G. Jepson & Co., drysalers, Leeds, sought to recover from Thomas Bayley & Co. (Limited), Nottingham, the sum of 454*l.* for 500 boxes shumac sold. Whilst this had never been returned, the defence set up was that the goods were defective in quality, that they were not delivered in the time specified in the contract, and further, that they were never accepted. The defendants also put in a counter-claim for damages alleged to have been caused in consequence of the inferior quality of the shumac, and the delay in its delivery. After hearing evidence, Mr. Justice Cave said he was satisfied that the shumac was not of an inferior quality, but was the same as that delivered previously at the same price. He gave judgment for the plaintiff for the amount claimed, and dismissed the counter-claim of the defendants.

## LIVERPOOL AND DISTRICT.

**MR. EDWARD EVANS, JUN.,** a partner in the well-known firm of wholesale druggists in Hanover Street, has been engaged for some time past in organising an association under the title of the St. Peter's Ward Municipal Reform Association, by which the present heavy rates of this city may be reduced, and the extravagance of the local rulers checked. The association is likely to be a great success.

**WIDNES TRADERS' ASSOCIATION.**—The annual meeting of this association was held at Messrs. Gaskell, Deacon & Co.'s rooms on Tuesday under the presidency of Mr. E. K. Muspratt. The principal business under discussion was the Railway Traffic and Canal Bill, which was strongly opposed. Steps were taken to make this opposition felt. The chairman was elected president, and Mr. H. Wade Deacon secretary for the next three years.

**AN EVICTED CHEMIST.**—At the assizes on Saturday Mr. Philip Trainor, a chemical manufacturer, was awarded 15*l.* as damages inflicted upon him by a plumber who forcibly entered his house, and put his furniture, his wife, and himself out in the street last September.

**THROWING CARBOLIC POWDER.**—Julia Ruddy, the girl who threw carbolie powder in another's face in January last, thereby injuring her victim's eyesight, was brought up for trial at the assizes on February 10. The defence was that it was done accidentally, and, in this belief, the jury returned a verdict of guilty without intent, but they had to reconsider this, and, to the astonishment of the court, brought in a verdict of "guilty."

**MYERS'S CATTLE SPICE.**—At the assizes on Tuesday, in the Nisi Prius Court, before Mr. Justice Smith, the case of Myers *v.* Wood was heard. Myers & Co. are cattle-spice manufacturers of Liverpool, York, and Hull, and the defendant is an ironmonger at Newton Abbot. Myers sued on a bill of

exchange for 51*l.* Wood admitted the acceptance of the bill, but pleaded that the consideration for which it had been given had wholly failed, and that he had been induced to accept it by fraudulent representations.

Mr. Pickford appeared for the plaintiff; Mr. Crompton, Q.C., for the defendant. The latter, on whom the onus of proof rested, said Myers saw Wood on April 21, and induced him to accept the agency for his cattle-spice. Myers told Wood the food was selling largely, and was superior to Thorley's. He promised to do the advertising and find travellers to work the district. On May 1 two tons of cattle and poultry spices were sent to the defendant, the net cost being 51*l.* 17*s.*, for which the defendant had accepted a bill of exchange. The defendant now alleged fraudulent representation, because the food was described as being equal to or better than Thorley's food, and that the plaintiff had not advertised his (defendant's) name as promised. The sum of 15*l.* had been paid into court on account of the amount of stuff sold.

Edward Davies, analytical chemist, Liverpool, said he analysed the spice. It could not be called a spice at all, for it scarcely contained anything of an aromatic or stimulating nature, which would make ordinary cattle feeding more palatable. As an article of food for cattle it was inferior in value to barley and other cattle food. Cross-examined: He knew nothing of its practical effect on cattle.

Thomas Myers, one of the plaintiffs, was called, and stated there was a good demand for the spice. When talking to the defendant he did not say it was better than other people's. It was not his habit to run other people's spices down. He told the defendant his firm did more for an agent than Thorley or other manufacturers. About 30*l.* had been spent in advertising in the Newton Abbot district. The reason why he did not move in the case at Leicester, where the verdict had gone against him, was because at that time he had a loss of over 10,000*l.* on an estate. His Lordship: A special jury found it to be a gross fraud. The Witness said that at the time he was not in a position to move. His Lordship: At Derby the jury seemed to have done the same thing. The witness said he was satisfied with Mr. Justice Stephen's summing up at Derby. His Lordship: Can you tell me any substantial difference between your placing your cattle spice with Blood at Barleythorpe (the defendant in the Leicester trial) and placing it with the present defendant? Witness: Well, the Newton Abbot district is a great deal larger than the Barleythorpe district. In cross-examination, plaintiff said his partner was a Mr. M'Dougall, who had been a bankrupt. He became his partner in January, 1886. M'Dougall had paid for his share of the business over 1,000*l.*, and he (plaintiff) had 350*l.* in it himself. Mr. Crompton: Is M'Dougall the M'Dougall connected with the Washington Hotel here? Plaintiff replied that he was. He had compromised an action with Haynes, of Sheffield, because he thought it the wisest thing. It was settled by his taking back the spice. The only other action was the next one on the list. Over 2,000 persons were now selling the spice, and a very small percentage had made any complaints. Mr. Pickford mentioned that M'Dougall became bankrupt in 1882, and got his discharge in 1885. He had paid 20*s.* in the pound to all but one creditor, he believed. Two of the plaintiffs' agents were called to show that the spice met with a good sale in their district, and Mr. Verity, cowkeeper, Liverpool, stated that he found it was good stuff for feeding cattle on. Baxter, the plaintiffs' traveller, gave evidence that the advertising was done properly. Richard M'Dougall, son of the other partner in the firm, stated he did the bill-posting, and he saw that the defendant's name was on the placards.

His Lordship said the question was whether it was not a device of Myers to go about the country cheating these people, and not doing what he promised. He remembered very well having a case of Myers & Co. *v.* Blood at the Leicester Assizes, in which a special jury found that the defendant had been cheated, and no motion was made to discharge that verdict. He inquired whether there had been such a motion, and he was told there had not, but that the defendant had been inundated with letters saying they had been cheated in the same way. Mr. Pickford said he knew nothing about that trial. His Lordship: I do not believe you do, but I do. A special jury found it had been a regular swindle; that he went round the country for the purpose of



getting these small shopkeepers to take the goods under certain promises; he then got them under the harrow of bills of exchange, and then did nothing except to send down the bill for the goods.

Mr. Pickford said he had heard there was a case at Derby, and he was told that Mr. Justice Stephen was not satisfied with the verdict, and gave Myers, who was the defendant, leave to move, and the motion was pending. His Lordship: Then, if I am in court when that comes on, I shall tell my brother-judges something about it.

Mr. Pickford remarked that his Lordship having tried the case at Leicester, he (the learned counsel) had great difficulty in putting the case before him. He submitted that whatever might have been the verdict in the previous case, there was no fraud made out against Myers in the present case. His Lordship remarked that the case to be made out was whether the consideration had not failed. Mr. Pickford argued that it had not been shown that the consideration had failed.

In giving judgment, his Lordship remarked that perhaps it was unfortunate that he tried the Leicester case, which was identical with the present one. He certainly thought when he tried the Leicester case that, upon the evidence before him in court, Myers was entitled to the verdict, and he did his best to get a verdict for the plaintiff. The special jury, however, knew more than he did, and that all over the length and breadth of the land small shopkeepers had been "planted," as the learned counsel had remarked, by this cattle-spice, and they found a verdict for the defendant. The jury did justice. Afterwards, when the case came before him in London for third-party costs, he inquired, and was told that the plaintiff had not moved, and that the defendant had been inundated with letters from various persons who had been "planted" in the same way. He was obliged to take that into consideration in adjudicating in that case, and it was impossible for him to shut it out. Since then there had been an intermediate trial in Derby, where again the jury found against Myers. In the present case, the defendant had counter-claimed for 60*l.* damages he alleged he had suffered. He gave judgment, with costs, for the defendant on the counter-claim, less the 15*l.* paid into court.

In another case brought by the same plaintiffs against Jones, a grocer of Llanberis, who after contracting had countermanded his order, the learned judge gave judgment for plaintiff, with damages one farthing, and gave the defendant costs.

THE GLASS-WORKERS' DISPUTE at St. Helen's has been settled, the men agreeing to return to work for a period of two months on the old terms. During this term the masters and men will arrange a classified price-list, which will cover the elements of dispute.

#### MANCHESTER.

TESTIMONIAL TO SIR HENRY ROSCOE.—A meeting of past and present students is called for Saturday, the 19th inst., in the chemical theatre of Owens College, to consider how the pupils who have passed through Sir Henry Roscoe's classes may offer him some recognition of their sense of his services to the College during the thirty years of his occupation of the Chair of Chemistry.

ADULTERATED PEPPER.—At the Manchester County Police Court on Friday, the 11th inst., Edward Pleasance, grocer, of Bury Road, Prestwich, was charged with selling pepper which, upon analysis both by the county analyst and the analysts at Somerset House, was found to be largely adulterated with ground olive stones and other matter. A plea was put in that defendant had bought the pepper under a written guarantee of its purity, but the bench found the charge proved, and inflicted a fine of 10*l.* and costs.—At the same time James Edward Leake, grocer, Market Place, Stretford, was summoned on remand for selling some white and black pepper which was found on analysis to be adulterated with earth, clay, rice flour, and pepper husks. A plea similar to the foregoing was put in, and it was also suggested that the foreign matter might have got in accidentally. The bench thought the length of time Mr. Leake had been in business without complaint should be taken into consideration, but, as he had been guilty of selling adulterated pepper, a fine must be inflicted. In the case of the black pepper he would be fined 5*l.* and costs, and for the white pepper 40*l.* and costs.

#### MERTHYR.

FURNITURE PASTE AND FIRE.—About seven o'clock on Tuesday evening a fire occurred at the shop of Mr. E. W. Harris, chemist and druggist, of High Street, the origin of the outbreak being the accidental ignition of the ingredients of furniture paste which Mr. Harris happened to be preparing at the time. All the constables at the police station were quickly upon the scene with hose and standpipe, and although the place was ablaze when they arrived, the conflagration was in the course of half an hour entirely subdued. Mr. Harris had his hands rather badly burnt, and his face also was slightly scorched. This is the third fire which has taken place upon the premises within a recent period, and one of the previous ones arose under circumstances almost identical with those of this last conflagration. The damage, which is estimated at over 50*l.*, is covered by insurance.

#### NOTTINGHAM.

THE CHEMIST AND OBSCENE PHOTOGRAPHS.—At the Nottingham Assizes, on the 3rd instant, the case of George Edward Inger, a chemist and druggist, carrying on business in that town, who was indicted for obtaining and procuring indecent and obscene photographs and prints and selling and causing them to be uttered, came up for hearing, but the grand jury did not find a true bill, and the case was dismissed. The facts of the case were briefly reported in our issue of the 29th instant. Mr. Inger's legal adviser has written to a local newspaper explaining how the prosecution arose. It appears that Mr. Inger carries on the business of an optician, and in that capacity keeps an extensive stock of photographic articles, amongst which were the photographs of nude female figures. These, however, were not exposed for sale, but, it is stated, were kept under lock and key, and only sold to artists. The case against Mr. Inger was instigated, his counsel states, by "a social purity gentleman."

PRELIMINARY CANTERS.—On Friday evening, February 11 an examination of the students attending the pharmacy class in connection with the Nottingham Chemists' Association was held in the Sunday School Institute. The examination was conducted by Messrs. W. Widdowson, H. Thacker, and W. Gill in a similar manner to the Minor, and was the second of a series to be held during the session in order to test what progress has been made by the students, and to familiarise them with the nature of the Pharmaceutical Minor. Fifteen students attended, and eleven of these presented themselves for examination. As only three students could be examined at once, the remainder, while waiting their turn, inspected the contents of the museum of the Association and a number of materia medica specimens lent for the occasion. These examinations are found to be an agreeable change from the routine of the pharmacy lectures, and are much appreciated by the students, especially the older ones. The class is held every Friday evening, at 9.15, and has, so far, been very successful, there being eighteen names on the register and an average attendance of fifteen.

#### OLDHAM.

THE CHARGE OF MURDER AGAINST A NURSE.—An adjourned inquest was held on Monday at Castleton-by-Rochdale on the body of Mary Ann Finley, who died in February of last year, and who is suspected of having been poisoned by her daughter, Elizabeth Berry, a nurse of the Oldham Workhouse, who is to be tried at the Liverpool Assizes on a charge of poisoning her daughter. Evidence was given that Mrs. Finley was ill for about a fortnight prior to her death, and that her daughter went to look after her. Subsequently Mrs. Finley became worse, and she died rather suddenly on February 13. Alice Chorlton, who had lived with the deceased, stated that she gave Mrs. Finley a drink prepared by Mrs. Berry, which the former declared was "worse than poison." Mr. John Taylor, chemist, Rochdale, stated that a woman, describing herself as an hospital nurse, called at his shop on February 9 of last year for half an ounce of solution of sulphate of atropia, and presented a slip of paper with the Latin name of the article written upon it; she stated that she wanted it to drop into the eyes, and questions which he put to her she answered apparently in a satisfactory manner saying that she was a nurse and was accustomed to use it



On the 12th she called for an ounce, saying that she had knocked the first supply over. He supplied the solution. The woman signed her name in his sale book as Ellen Saunders, Freehold, Castleton. Mr. Lawson, master of the Oldham Workhouse, expressed the opinion that the signature was Mrs. Berry's. Further evidence was given that the deceased was insured in two offices for 127*l.*, and that 27*l.* was paid by one office to Mrs. Berry. The inquest was adjourned to enable the chemists who have made an examination of the exhumed body to give evidence.

#### SHEFFIELD.

**ATTEMPTED SUICIDE BY "INSECT POWDER."**—An amusing case of attempted suicide occurred here a few days ago. A policeman called at the shop of a local druggist during the afternoon, and asked if a youth had been supplied with some insect powder recently, producing at the same time a wrapper showing traces of having contained that article. This was satisfactorily identified, and the blue-coated official then proceeded to unfold his tale. It appeared that a working-man's wife, having quarrelled with her lord and master, conceived the idea of self-destruction, and employed a small boy to purchase *one* pennyworth of the above deadly drug. A portion of this she mixed with a *pin*t of tea, and having apprised her husband of her intention she proceeded to swallow the fatal draught. Our worthy policeman was at once called and asked to convey her to the dispensary, but, being a handy man, he chose to apply remedies himself. So, having first cleared the patient's stomach with copious draughts of salt and water, he followed with mustard and water, until the poor woman was really sorry she wasn't dead. Leaving her in a state of great perturbation he went forth to verify the sale of the powder, and to ascertain its probable effects, and having been convinced that the possible danger was something less than nothing, he returned to further ease the woman's soul with visions of cells and courts, being himself apparently in a very pleasant and self-satisfied frame of mind, and immensely tickled at the idea of the fun he was having. No further proceedings have as yet been reported, so we may conclude that, being in possession of a sound mind in a sound body, the erring female has seen the evil of her ways, and returned to her duty.

**DEATH FROM CHLOROFORM.**—Last week an inmate of the Fir Vale Workhouse died under the influence of chloroform. The chloroform was administered to admit of an operation for cancer of the breast being performed. At the inquest, the visiting and resident surgeons gave evidence showing that they had examined her before administering the chloroform, and considering her a fit subject. Death would surely have occurred if the operation had not been performed. A verdict was returned in accordance with the medical evidence.

**DEATH OF A SHEFFIELD CHEMIST.**—Mr. Lewis Stamford, who was at one time in business here, died last Friday. Mr. Stamford has of late years been in very reduced circumstances, and, unfortunately, leaves his wife and family in the same condition.

#### WHITEHAVEN.

**THE SALE OF POISON.**—At the Cleator Moor Police Court on February 11, Frederick Thomas Allatt, chemist, Frizington, near Whitehaven, was summoned under the Pharmacy Act, 1868, on a charge of having sold to one Jane Braden a certain poison, to wit, arsenic, and that he unlawfully did not, before delivering the same poison, make or cause to be made an entry in a book to be kept for that purpose, stating the date of the sale, the name and quantity of the article sold, and the purpose for which it was stated by the purchaser to be required, and to which entry the signature of the purchaser ought to have been affixed. Mr. W. H. Chapman appeared for the defendant. Jane Braden, Frizington, examined by Superintendent Thornburrow, said that on January 22 she went to the defendant's shop and asked for threepennyworth of poison to poison vermin. Mr. Allatt did not ask her name or address. Witness did not sign her name in any book, nor did any person sign it for her. The result of her obtaining the poison was that she had a child poisoned with it. By Mr. Chapman: She did not ask for any particular

poison, but something with which to kill vermin. She had dealt with Mr. Allatt a good many times, and he knew her very well. Sergeant Bell was about to give evidence as to the proceedings at the inquest held upon the last witness's child, when Mr. Chapman interrupted to say that there was no attempt to set up a theory that a registry was made in the book. The Chairman: You mean he admits the offence against the Act. Mr. Chapman: Yes. The Chairman: Then what is this evidence? The Superintendent: We are going to prove it. It is not proved yet. The Chairman said it was sufficient if the defendant admitted it. Mr. Chapman said there would be no attempt on his part, or on the part of Mr. Allatt, to say that there had not been a technical breach of the Act. Mr. Allatt did sell poison, and without registering it as required by the Act. He wished just to take this opportunity, in justification of Mr. Allatt to the public, to point out exactly what these proceedings were. They were, of course, only for a technical breach of the Act. There seemed to be an impression abroad that Mr. Allatt was morally or in some way to blame for the poisoning of this child at Frizington. But, really, there was not one tittle of blame could attach to him. He was bound to supply this poison if this woman applied to him for it, although he was bound also to make this entry in the book. That he did not do, but if he had done so it could not possibly have affected the poisoning. Mr. Chapman went on to explain the fact of Mr. Allatt omitting to make the necessary entry, stating that it was really an oversight. The Chairman said they would only inflict a nominal penalty. The costs amounted to 18*s.* Mr. Allatt would have to pay a fine of 1*l.*, including costs.

#### WOLVERHAMPTON.

**ALLEGED ARSON.**—At the Staffordshire Assizes, on February 15, before Mr. Justice Manisty, John Edward Stephens (46), no occupation, was charged with feloniously setting fire to the dwelling-house of John Parkes Cooper, chemist, Five Ways, Wolverhampton. Prosecutor's daughter, Maud, swore that the prisoner was drunk about one o'clock on the night of December 8, and quarrelled with her father. He went into the kitchen, which adjoined the room where prosecutor lay ill, and said he would set the house on fire. He then tipped over a lamp and poured the petroleum on to an old coat, to which he set fire. He put the coat in a corner and the skirting board took fire. Prisoner then informed the police, and said he intended to burn the house down. For the defence, prosecutor's wife was called and swore that the prisoner struggled with her to get to the prosecutor, and that the lamp was accidentally upset in the struggle, probably by herself. Prisoner did his utmost to put out the flames by throwing his coat over them. Prisoner was acquitted.

#### SCOTLAND.

##### DUNDEE.

**NEW PHARMACY.**—It is rumoured that ex-Baillie Doig is to open a branch in the east end of the town, near Baxter's Park.

**THE NEW MEDICAL SCHOOL** is to get 500*l.* from the Town Council added to its funds. On the same day as this sum was voted, 2,500*l.* was given to the new Art Gallery, all in commemoration of the Jubilee. The poor Imperial Institute may get nothing, although one loyal councillor suggested 100*l.*

##### EDINBURGH.

**NORTH BRITISH BRANCH.**—An evening meeting was held on Wednesday at 8.30, when Mr. H. B. Baidon, chairman of the executive, delivered an address, and Mr. D. B. Dott read a paper on the evidence of the existence of acid morphine meconate. After the meeting tea and coffee were served.

**SCARLET FEVER** is at present epidemic in the city and outskirts. In some of the suburbs it appears to be of a very dangerous type. The cases are so numerous that chemists are for the time being quite busy. "Cutting" establishments are at a discount at present. In cases of emergency and real illness people do not wait to compare price-lists.

**THE VETERINARY STUDENTS** have not quieted down yet, and are not likely to until the honour of their good name has been made clear to the public. A largely attended meeting



was held in Dick's College, Clyde Street, on Tuesday. "Scorn and indignation" were quite prevalent in the meeting, which was wholly conducted by students, and several resolutions were passed calling upon the Council of the R. C. V. S. to inquire into their grievances; and at the same time the students by resolution repelled the charges of ungentlemanly conduct which have been made against them. The authorities of Dick's College have taken counsel's opinion regarding the threat of the president of the R. C. V. S. to refuse to examine the students of that college, and the legal gentleman has stated that the R. C. V. S. must examine them: meanwhile a lively correspondence is going on in the Edinburgh newspapers regarding the matter.

**CUTTING SHOPS.**—The shop in Maitland Street that popular report said was to be fitted up as a cheap drug store to ruin the west-end pharmacists has now been occupied by a coal merchant.

The rage for reducing prices still goes on. Some even of the old-established businesses are advertising that they supply all drugs, as well as patents and proprietaries, at wholesale prices for cash.

The undernoted are examples from the list of a firm near the west-end which recently underwent a change in the proprietorship:—

Compound liquorice powder ..	..	2s. per lb.
Gregory's mixture ..	..	6d. per oz.
Tincture of steel..	..	2d. "

Labour appears to be cheap in that quarter.

The following gem is from the same neighbourhood:—"Blank & Co. would seek to impress upon the public the necessity of giving them their liberal support, as it must be evident to everyone that these low prices cannot be continued if the public do not respond and bestow them their most liberal patronage."

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

**THE HAVRE INTERNATIONAL EXHIBITION.**—Persons or firms desiring to send exhibits to the section of hygiene and alimentation are allowed until February 25, as the latest date on which they make application for space. For information address M. L. Bourne, 2 Rue de Provence, Paris.

**M. LÉON GUIGNARD**, the newly appointed professor of botany to the Paris College of Pharmacy, became a Doctor of Sciences in 1881, with a thesis on comparative embryology of vegetables. When he successfully passed his examination in 1882 at the Paris school, as pharmacist of the first class, the subject of his thesis was entitled, "*Recherches sur le sac embryonnaire des phanérogames angiospermes.*"

**ARMY SURGEONS AND PHARMACISTS.**—Croakers will not say now that General Boulanger neglects the medical service. By a new order, army physicians and pharmacists shall hereafter, when in full dress, wear the stiff *képi* of the usual model, bearing the distinctive insignia of each corps, together with the national cockade and the dead-gold pompon. This shows, anyhow, that the army pharmacist is not dead yet.

**TRANSMITTING POWER BY ELECTRICITY.**—Legal notice has been published of the formation of a company for applying industrially and commercially the principle newly discovered and practically tried between Criel and Paris on the line of the Northern Railway. Among the incorporators the names appear of the Rothschild Brothers and of Baron Jacques de Reinach.

**NEXT AFTER THE PHYSICIAN AND PHARMACIST.**—The manufacturing undertakers, it appears, have made application to obtain space for exhibiting their wares at the Centennial Exhibition of 1889. They have, it seems, most exquisite coffins, and perfect loves of outfits for both summer and winter wear. But the committee would not entertain the petition. It is said they thought it was enough to have allowed the exhibition of medicines, poisons, pharmaceutical preparations, surgical instruments, and other appliances too suggestive to be pleasant, and that the line must be drawn somewhere.

**MINERAL CONSTITUENTS OF CIDER.**—According to M. Le Chartier, soluble salts of potassa and magnesia form the largest part of the mineral constituents of cider. Lime, on the other hand, remains in the insoluble portions, and barely constitutes one-tenth of 1 per cent. of the mineral substances contained therein. The proportion of mineral matters is not influenced by the nature of the soil where the tree grows, but varies according to the sort of tree or apple cultivated. Lime, to the contrary of what occurs with the apple juice, is very abundant in the wood and leaves of the tree, and these organs allow nearly the whole of the potassa compounds to pass into the apples. Such is the substance of a communication made, on February 7, to the Academy of Sciences M. Le Chartier's observations are of some importance in a medico-chemical point of view, as countries like Normandy, for instance, where cider is the usual drink of the classes, have been noticed to be almost entirely free from cases of gravel and stone in the bladder. Statistics recently published by the Caen hospital physicians are remarkable in this respect.

**THE CENSUS OF PARIS PHARMACISTS.**—The Prefect of Police of the Department of the Seine has just revised, as customary, the list of the pharmacies in actual working order within his jurisdiction. From these data, now published, it appears Paris proper on December 31, 1886, had 823 pharmacists in active practice, 591 of whom held a diploma of the first class, and 232 one of the second class. In the suburbs, that is, outside of the fortifications, there were 103 pharmacists of the first class, and 55 of the second, making up for the whole department a grand total of 981 pharmacists. In round numbers this corresponds to one pharmacist for 2,750 inhabitants in the city, and one to 3,350 in the suburbs. Formerly only pharmacists of the first class were allowed to practise in Paris, and the way the second class dispensers crept in is singular enough. As is the case with departments in general, pharmacists of the second class were authorised long since to keep pharmacies in the Department of the Seine, outside Paris, and that territory included, up to 1860, all the little suburban villages like Auteuil, Montrouge, &c., situated between the fortifications and the old *octroi* walls. When the city limits were extended to the fortifications, the old walls having been pulled down, all the second-class pharmacists already doing business in the annexed districts naturally came in like the rest of the inhabitants, and it was found impossible to drive them out. Besides, the courts soon settled the point, and forbade any interference with vested rights. The second-class pharmacists had come in to stay. Hence, there being no further object in refusing them authorisation to settle in any portion of the department, they are now allowed to keep pharmacies in all parts of Paris. But, it may be asked, how can you tell a pharmacist of the first from one of the second class? Very easily. When the *affiche* is kept by one holding a diploma of the first class, the public is sure to see on the front windows, door, and shop-front, "*Pharmacie de première classe.*" When no mention at all is made, you may be certain the owner has a diploma of the second class, but is too modest to brag of the fact.

**BLUE VITRIOL AND WINE.**—The readers of THE CHEMIST AND DRUGGIST probably remember the remedy lately recommended against a new grape-vine disease, namely, a mixture of sulphate of copper, slaked lime, and a sufficiency of water. The disease, being of American origin, has naturally an English name, *mildew*, which the French spell *mildiu*. The remedy, having been invented in the Bordeaux districts, where the disorder was most prevalent, has received quite as naturally the name of *bouillie bordelaise* (Bordeaux pap, or porridge), indicating well the origin and appearance of the mixture. So far the remedy has proved quite successful, but regularly once or twice a year the public becomes afraid of the Bordeaux wines made from grapes bedaubed with oxide of copper while ripening. It must be admitted that such fears are not quite unreasonable, but they are usually soon quieted by some scientific body or other of the old capital of Gascony. This time the Bordeaux Faculty of Sciences took the matter in hand, and named a committee to investigate the subject. According to the committee's report now published, nearly all the copper is eliminated during the fermentation in the vats, and after the first racking scarcely a trace of the metal can be detected in the wine. The product is therefore quite wholesome and unobjectionable.



## THE REDWOOD TESTIMONIAL FUND.

A MEETING of the Executive Committee was held on Wednesday, February 9, the president of the Pharmaceutical Society in the chair. The honorary secretary (Prof. Dunstan) announced that rather more than 800*l.* had been subscribed, from which amount the working expenses had to be deducted. A discussion took place as to the best method of dealing with the sum, in accordance with the resolution which had been passed at a previous meeting. On the motion of Dr. Langdon Down, seconded by Mr. Atkins, it was resolved—

That about 600*l.* should be invested for the foundation of a Redwood scholarship, to be held in connection with the School of Pharmacy of the Pharmaceutical Society, and that the surplus be expended in painting a portrait of Professor Redwood, to be placed in the house of the Society.

A committee, consisting of the President of the Pharmaceutical Society (Mr. Carteighe), Mr. John Williams, Mr. Walter Hills, Dr. Langdon Down, and Professor Dunstan, was appointed to carry this resolution into effect, and to report at a subsequent meeting of the committee.

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John Robbins ..	5	5	0	H. Parry Thomas ..	0	5	0								
W. R. Roberts ..	0	5	0	R. Thomas ..	0	2	6								
Prof. C. Roberts-Austen, F.R.S. ..	2	2	0												

From Australasia.

A. Andrews (Beaufort) ..	0	10	6
C. A. Atkin (Hotham) ..	0	10	6
B. Baker (Richmond) ..	0	10	6
D. R. Blackett (Fitzroy) ..	0	10	6
W. Bowen (Melbourne) ..	0	10	6
H. Brind (Ballarat) ..	0	10	6
J. Brinsmead (St. Kilda) ..	0	10	6

## DR. GEORGE WATT, C.I.E., ON GANJA.

At the evening meeting of the Pharmaceutical Society held in November, Dr. Watt, in speaking of the propagation of ganja, stated that native experts were employed to go through the fields in order to cut down the male plants while they were in the young state; and that if one single male flower were left in a whole field cultivated for ganja, not a single particle of ganja would be produced, but that bhag would be the result.

A Demarara correspondent (Mr. T. W. Hutton, of Georgetown), writing on this subject, says:—

"If such is the case, can you afford any explanation regarding the presence of fertile seeds in the accompanying sample of ganja, which is considered by the East Indian dealers here to be a very good one? It is received here in original packages from Calcutta, and is labelled 'Ganja.'"

We have submitted the sample to Dr. Watt, and he has sent us the following reply, dated "India Office, February 16":—

"SIR,—I had much pleasure in receiving your letter forwarding a specimen of 'ganja' for my inspection, and asking me for further information to what I gave at a meeting of the Pharmaceutical Society regarding that narcotic. I was not permitted to see the proof of my remarks made at that meeting, and, having a pressing engagement that night, I had to leave before the close of the proceedings. From both these considerations I was unable to correct a defect in what appeared in the Journal. In the first place, I seem to have forgotten to conclude my remarks with what, after all, was the important point, namely, that the 'ganja' made in all other provinces is inferior to that produced in Bengal. The Act regulating the trade in 'ganja' is only enforced to its full extent in Bengal, and hence the 'ganja' of other provinces costs only about one-twentieth of the Bengal. In



Bengal a licence has to be taken out to grow, to trade, and to retail the article; and, over and above these charges, the 'ganja' produced has to be stored in the Government 'golahs,' and when removed has to pay a duty of 10s. for every two pounds. Naturally only the very purest article goes into the 'golahs'; adulteration, if it takes place at all, occurs in the retail merchant's shop, for while in the hands of the wholesale dealer it passes under a sealed permit. Every stage of the cultivation is carefully supervised, and in no instance are the male plants allowed to grow up with the female, since it has been ascertained that when fecundation occurs the 'ganja' is injured and greatly diminished. The sample you send with mature seeds cannot possibly be Bengal 'ganja.' In the second place, I should have liked to correct a mistake made by a Bombay gentleman who spoke at the Society's meeting after my departure. He referred to purchasing Bengal 'ganja' in Bombay. I venture to think not one ounce of 'ganja' ever goes to Bombay. We have no record of 'permits' to Bombay, and no 'ganja' can leave the Bengal stores without a permit. Again, the 'ganja' from the Central Provinces and that grown in the Bombay presidencies is sold in Bombay for about 1s. a pound, whereas Bengal 'ganja' costs not less than 20s. a pound. It is thus conclusive that the Bombay 'ganja' cannot be Bengal produce.

"In a paper I read the other day at the Society of Arts I recommended chemists desirous of making the very best extract of Indian hemp to pay the full price for Bengal 'ganja,' and to import the article from Calcutta instead of from Bombay, when there would be every chance that the defects complained of in the extract as now prepared would disappear completely.

"I observe in your letter that you say the sample of 'ganja' sent for my inspection was obtained from a shipment from Calcutta. There is no record of any 'ganja' having been exported from Calcutta to England. Naturally the difference in price would be prohibitive, or be sufficient to tempt an unjust trader in declaring a consignment as having come from Calcutta when in reality it came from Bombay. Be assured of one point,—while we cannot absolutely prevent smuggling from one province to another, since all the Bengal 'ganja' is kept in a secure store, none of it can leave that store or 'golah' for England or for any other country or province except under a permit, and only then after paying the duty. It is therefore possible to speak with absolute certainty as to whether or not any shipments of 'ganja' left Calcutta for England or Bombay.

"I am, yours truly,  
"GEO. WATT."

#### ON QUININE SULPHATE MANUFACTURED BY THE AUTHORS OF THE DISCOVERY OF QUININE, PELLETIER AND CAVENTON.

BY DR. J. E. DE VRY, C.I.E.

AT the evening meeting of the Pharmaceutical Society held on February 9, 1887, Dr. Paul read a paper, "The Tests of Quinine Sulphate," published on page 645 of the *Pharm. Journ.* of February 12 last, in which the following sentence struck my attention:—"When we call to mind the fact that cinchonidine is almost always associated with quinine in the bark from which quinine sulphate is manufactured, and also the fact that up to the year 1844 cinchonidine was not known as an independent substance distinct from quinine, it will be evident that there is, on these grounds alone, very good reason for believing that prior to the date mentioned the article known as quinine sulphate was really a mixture of the sulphates of quinine and cinchonidine. It would be possible to mention in support of this view many circumstances recorded by trustworthy observers, but I will merely refer to the fact lately made known by Dr. de Vry, that the quinine sulphate originally manufactured by Pelletier contained a considerable amount of cinchonidine."

As I had the honour to be personally acquainted in 1835 with Pelletier, I am indebted to his memory to protest strongly against the underlined assertion. I really cannot conceive how the editor of the *Pharm. Journ.*, Dr. Paul, could make such a statement, for in his capacity of editor and reader of German periodicals, he should have been better in-

formed by the paper of Dr. G. Vulpinus, in No. 29 of the *Pharmaceutische Centralhalle* of July 22, 1886, p. 345. But whatever this be, the editor of THE CHEMIST AND DRUGGIST can convince himself that I have said quite the contrary in the lecture which I delivered on November 2, 1886, to the Académie de Médecine in Paris, of which I sent him a copy, as also to Dr. Attfield, and some others of my English friends. In that paper I stated the following:—

"Since the discovery of quinine in 1820, chemistry and its application to chemical industry have made immense progress, and we should consequently have the right to expect that the quality of the actual quinine sulphate was at least as good as in the time of the discovery of quinine. Thanks to the kindness of M. Génévoix, Director of the Pharmacie Centrale de France, I was put last May in possession of a specimen of calisaya bark from the collection of Pelletier himself, from which I obtained 64 per cent. of quinine tartrate. The optical observation proved that it contained 95.4 per cent. of quinine tartrate and 4.5 per cent. of cinchonidine tartrate, which alkaloid was unknown in Pelletier's time. Therefore the quinine sulphate manufactured from such barks could not have contained more than 3.26 per cent. of cinchonidine sulphate."

Consequently, instead of making progress, we have retrograded, for the actual commercial quinine sulphate contains generally more cinchonidine than that manufactured by Pelletier. The cause of this fact is that calisaya bark (*Quinquina javane*) was originally exclusively used for the manufacture of quinine sulphate till about 1849, as the first barks from New Grenada were introduced into Europe in 1848 by Auguste Delondre, one of the partners of the firm, Pelletier, Delondre et Levaillant. Many of these barks contained, besides quinine, appreciable quantities of cinchonidine, the consequence of which was that the quinine sulphate manufactured from these barks contained more cinchonidine than that formerly prepared from calisaya bark. This amount of cinchonidine in French quinine sulphate was the cause that my lamented friend, Dr. C. Zimmer, the well-known quinine manufacturer, issued in 1851 a circular to his customers to warn them against this quinine sulphate, which he supposed to have been mixed with cinchonidine sulphate. This, however, was not so, for the presence of such a large quantity of cinchonidine was only the consequence of the use of barks containing much cinchonidine besides quinine. Zimmer's circular contains the following sentence:—

"We know still little about the therapeutic action of this alkaloid (viz. cinchonidine), but whatever results the impending experiments may afford, such voluntary substitution is under all circumstances unaccountable, and makes honest competition almost impossible."

I conclude by expressing the hope that these lines may have convinced the readers of this journal that I never made myself guilty of the assertion attributed to me by Dr. Paul. It is, however, true that in the spring of 1883 I communicated orally to the Société de Pharmacie in Paris that Pelletier never knew "chemically pure" quinine, because the small specimen of "quinine pure" with which he presented me in 1836 contained a "trace" of cinchonidine, which I found out in 1856 by the use of the polariscope. But every one will agree with me that a "trace" is quite different from "a large amount."

The Hague, February 16.

#### LONDON CHEMISTS' ASSISTANTS' ASSOCIATION.

A MEETING of this Association was held on Wednesday evening, Mr. J. F. Burnett, vice-president, in the chair. The principal business of the evening was a communication by Mr. C. Thompson, F.C.S., on

#### PHARMACEUTICAL SOAPS.

Speaking from notes in a conversational style, Mr. Thompson explained, to begin with, that his subject had, he found, been previously and recently taken up by other workers, particularly by Messrs. Dechan and Maben, whose results, as recorded in two papers, he dealt with in detail, pointing out that their figures, look at them and work them out how you will, cannot be construed into anything intelligible. They seemed to be based upon too high molecular weights, and



thus gave rise to the thought that the pharmaceutical soaps which they had examined were either nondescript compounds, such as resin soaps, or the analyses were incorrectly done or improperly stated.

The soaps which Mr. Thompson spoke of were the hard soaps of the Pharmacopœia, viz., curd soap and castile soap, and soft soap. The most important matter which the chemist has to ascertain, he explained, was the absence or otherwise of any appreciable quantity of pure alkali, especially in toilet soaps and those used in pharmacy, and it is very necessary that this should be done with curd soap and Castile soap, because he had found that many of those in the market contained so much free alkali that they were more fit for washing the hide of a cow in order to take the hair off than they were for pharmaceutical purposes. Speaking of the manufacture of hard soap, he said that the soda lye is added to the melted fat or to olive oil, in successive portions, until the fatty acid is wholly combined, and then a large excess of the lye is added, which has the effect of throwing the soap out of solution remarkably free from alkali, or brine is added, which has the same effect in "cutting" the soap. Castile soap should not properly be mottled. The old Castile soap had this mottled appearance on account of the alkali from which it was made containing iron, and at that time the presence of iron in the soap was considered to be a guarantee that it did not contain an undue proportion of water. The mottling is now done by the addition of iron sulphate, and manufacturers have discovered how to add a large proportion of water to the soap. Moreover, poppy-seed oil or some other seed oil is now generally used along with olive oil, in order to keep the soap soft.

Soft soap is made by boiling the olive oil with potash lye in excess, and evaporating the mixture to a clear jelly, in which condition it is considered well made. The excess of potash is necessary, because otherwise the soap would contain olive oil and free alkali to a small extent.

Next referring to soaps as they are found in the market, Mr. Thompson disagreed with Dechan's statement that Castile soap and hard soap are two different things. He quoted Squire as an authority, who maintained that they are the same, and stated that the basis of Mr. Dechan's assumption—viz. the percentage of fatty acids present—was not correct, but that the molecular proportions should be the basis. Thus, if curd soap was taken, the molecular weight of stearic acid being 284, it would be easy by a simple calculation to say whether such a fat as cocoanut-oil was present in the soap. This led him to speak of the curd soaps of the market. As a rule, they are made from a mixture of tallow and cocoanut-oil or palm-oil—the latter rarely. Cocoanut-oil has the property of permitting a large amount of water to be incorporated in a hard soap. He had examined one sample—a marine soap—which contained only 20 per cent. of fatty acid, the other 80 being water, free and combined alkali, and silicate of soda. This soap, he explained, amidst laughter, was one of the kind which could almost make water stand up, owing to its great gelatinising power. In speaking of the method of analysis, the phenomenon *hydrolysis*, which has been investigated by Dr. Alder Wright and himself, was explained. This is the property which soap possesses of breaking up in contact with water into free alkali and an acid stearate, oleate, palmitate, &c., as the case may be. To this is due, in a great measure, the detergent properties of soap, owing to the action of alkali. Hydrolysis also takes place when soap is boiled in alcohol, owing to the absorption of carbonic acid gas. Consequently in soap analysis account has to be taken of this fact in estimating free alkali. The methods, new and old, for this were described. Pharmaceutical soaps seldom contain free alkaline hydrate, but carbonate is frequently present and can be detected by dissolving the soap in strong alcohol, in which the carbonate is insoluble. Soaps containing 0.2 per cent. are quite fit for use in the toilet, and Mr. Thompson considered the statements made by certain soap makers regarding the injurious nature of the alkali which exists in ordinary toilet soaps to be so much nonsense. He had examined a large number of Castile soaps and found the free alkali in them to vary from 0.0 per cent. to 1.5 per cent. He considered that an absolutely neutral soap should be insisted upon, and pointed out that the B.P. test is sufficient to detect any sodium carbonate which may be present. But the test given in the Pharmacopœia for curd soap, namely, the neu-

trality of its aqueous solution, is useless, because hydrolysis induces the separation of alkali. The alcohol test should alone be applied in this case.

A discussion followed in which the chairman, Messrs. Dymond, Millard, MacEwan, Strother, Taylor, and others took part. Like the communication, the discussion took a conversational turn, in the course of which much useful information, as well as amusing anecdotes, were elicited. Mr. Thompson described an interesting experiment in illustration of hydrolysis. A strong solution of a neutral soap is made with alcohol by boiling, a little phenolphthalein is added, and the whole poured into a tall jar. When the solution sets some water is poured upon it, and as it finds its way down, its path is marked by crimson streaks where alkali is set free and acts upon the phenolphthalein. Lin. potass. iodid. c. sapone, as made with hard soap and with curd soap, also came in for comment, without eliciting anything new, and an attempt by the chairman to get a scientific explanation of the many kinds of stuff which may be made for lin. terebinthinae, B.P., was not followed up. Mr. Thompson explained, in answer to a query, that the change of the colour of B.P. soft soap was due to oxidation. He also gave much interesting information regarding the composition of Pears's soap, as determined by analysis, and stated that so-called glycerine soaps, which are not hygroscopic, do not contain any glycerine at all.

## Gazette.

### PARTNERSHIPS DISSOLVED.

BARKER, C. D., & Co., Turmill Street, consulting chemists and electrical engineers.

HYNES, J. & E., Nottingham, surgeons and apothecaries.

JONES, R., & RAINBOW, F. A., Liverpool and Mostyn, Flintshire, pickle and sauce manufacturers and drysalers (under the style of the Welsh Pickling Company).

THE SILICATED CARBON FILTER COMPANY, Church Road, Battersea, filter manufacturers and workers in carbon; as regards A. H. Cockerton.

### THE BANKRUPTCY ACT, 1883.

#### FIRST MEETING AND PUBLIC EXAMINATION.

DOBSON, GEORGE, Penarth and Cardiff, chemical manufacturer. Feb. 23, Official Receiver's office, Cardiff; Feb. 22, Town Hall, Cardiff.

### RECEIVING ORDERS.

FITZGIBBON, GERALD, (trading as Gibbon & Co.), lately trading at Eastcheap, City, and Liversedge, Yorkshire, and residing at Headingley, near Leeds, dyewood and drysaltery broker.

FORSTER, GEORGE GRAHAM, Compton Terrace, Islington, lately carrying on business at Durham, surgeon-dentist.

### ADJUDICATIONS.

FORSTER, GEORGE GRAHAM, Compton Terrace, Islington, late of Old Elvet, Durham, surgeon-dentist.

HANNAN, FRANCIS JOHN, Woodstock, late of Workop and Downton, doctor of medicine.

MOYLE, JOSEPH, the Broadway, Hammersmith, chemist.

### NEW COMPANY.

RICHARDSON & CO. (LIMITED).—This is the conversion to a company of the business of chemists, druggists, and dentists, carried on by Sylvester Richardson, at Norton Road, Stockton-on-Tees. It was registered on February 7, with a capital of 1,000*l.*, in 2*l.* shares, with the following as first subscribers:—S. Richardson, Stockton-on-Tees, druggists' sundryman; J. Whitaker, Stockton-on-Tees, butcher; Miss A. Whitaker, Stockton-on-Tees; Mrs. B. Whitaker, Stockton-on-Tees; Miss L. E. Whitaker, Thirsk; Rev. E. Whitaker, Thirsk; Mrs. J. Whitaker, Stockton-on-Tees. Mr. Sylvester Richardson is appointed first managing director.



## THE LAWS OF NATURE IN RELATION TO HEALTH.

THE above was the title of a very interesting address delivered at the annual meeting of the Hertfordshire Natural History Society, at Watford, on Tuesday last, the 15th instant, by the President, Professor Attfield, Ph.D., F.R.S., &c. Subjoined are extracts from the address:—

## INTRODUCTION.

Perfect health. Picture such health. The health of, say, full-grown youth under the most free and favourable conditions. Perfect physical health; attended by perfect purity of mind and perfect strength of brain, associated with perfect development and cultivation of all the powers, and accompanied by freedom from all care and anxiety. Further, picture this health as commencing in the cradle, increasing in fulness towards manhood and womanhood, and extending to the age of a hundred or a hundred and four or five years, death then being only as the unawakening from sleep. That is perfect health.

The manner in which and the extent to which health more or less perfect is governed by laws is the subject of the present address. No one is so healthy but might be more healthy, and no one is so unhealthy but might be less unhealthy, by a proper apprehension and application of the all-sufficient laws of nature.

Our subject shapes itself somewhat as follows:—Personal health directly depends on the food we eat, the fluids we drink, the air we breathe, the clothing we wear. The health both of the individual and the family or household directly depends on the character of the dwellings we occupy. The health of the individual, the family, and the community, directly depends on the relation of dwellings to one another in villages, towns, and cities. Under this division of the subject the laws of nature in relation to health will now be considered.

## THE FOOD WE EAT.

Food is only a means to an end. Perhaps the best word to express that end is *work*; but work done within us by, for instance, the heart, the lungs, or the matter of the brain, as well as externally by, for example, the hands, the feet, or the muscles of the back. Indeed, from the point of view of health, the work done by the various organs of the body in blood-circulating, breathing, and thinking is of far higher importance than the work done in sewing, walking, or weight-carrying. The work of the heart or the lungs is, during life, regular, untiring, unceasing; the work of the hands or the feet, irregular, intermittent, limited. Nay, the work of, say, the seamstress, the pedestrian, or the coal-heaver only represents spare power at disposal over and above the power needed to carry on that work within the frame which life imperatively demands. An engine must first move itself; its spare power does the outside work. Be the work internal or external, however, food is the means by which the work is accomplished. "If any man will not work neither let him eat," said Paul. A far higher authority, the inflexible command of a law of nature, uttered without the agency of any human mouthpiece, decides that "if any man will not eat neither shall he work." Food and work are an equation, the one is the equivalent of the other; here man's will is powerless, here he must bend to law.

With the commencement of life we commence individual work; and the work of the infant heart, lungs, and muscles generally, as, for instance, in crying and screaming, involves an equivalent and prior assimilation of animal food. Thenceforward the infant must take enough food to enable it to perform such outside work as crawling on all fours, walking, grasping, clasping. Not until much later must it carry weights. The less constructive inside work the child or youth has to do as it advances in age, the more power will it have at disposal for other inside work, as, for example, the work of the brain during education; the more power, too, it will have at disposal for all outside work, whether at the workshop, the counter, or the tennis-lawn. Growth having ceased, a still larger proportion of brain and frame will be at the disposal of adults for work in the world outside themselves. In connection with the subject of the food we eat, nothing is more striking than this law of correlation as regards food and work.

Something, however, must be stated respecting the kind of food necessary, and the quantity. Bone must grow by additions of bone-material, both animal and mineral, and that material must be supplied in the food swallowed—must be, for this is no matter of opinion, it is a matter of law. But if not supplied; what then? If the mineral material is, say accidentally or ignorantly, withheld; what then? The child will have, one cannot say bones, but bone-shaped things made of the flexible animal material, a material resembling gelatine, but it will not have true bones. These bone-shaped things, looking like real bones, but lacking the firmness communicated by the mineral material, will give way under the weight of the body; the child will be rickety. The child will have the "rickets," a word equally expressive whether derived from the Greek or Saxon; for if Greek it has reference to the result as a disease of the *rachis* or spine, and if Saxon it has reference to the appearance of the child as resembling a heap, or hump, or rick, a small hayrick.

Here fond mothers will ask, "How can we avoid so dreadful a disease? how can we know which foods contain, or do not contain, this mineral material?" The full answer to that question would involve divergence into a lecture on certain chemical portions of physiology, which would be out of place. A short answer would be, "Avoid such mere starchy foods as arrowroot, and use such bone-forming flours as that of wheat." But that is an insufficient answer. Better fall back on a principle, and reply, "First recognise and become familiar with the law; then trust to your love and intelligence to find the right mode of applying the law." Let us all do what we can, by example and by precept, to aid the future parents of unborn generations to know more about themselves and more about the laws which govern the health of themselves and their descendants. If we read only good novels and read only what is worth reading in newspapers, we shall have time not only to study but to become familiar with subjects more fascinating than those of fiction and infinitely more useful and elevating. If people spent less time in gossip about persons, they would have abundance of time for converse about things.

After treating the supply by food of the daily waste of bone, muscle, and flesh, the lecturer passed to the warmth-giving aliments. "Most of the bread we eat, the greater part of potatoes, a large proportion of farinaceous puddings, pie-crust, and cakes, sugar, butter and the fat of meat—all these are useless for bone-making, and more or less useless for flesh-forming. Their chief office is, apparently, to burn with us night and day; thus maintaining that warmth of the body without which we could not exist for a moment. If we burn an ounce of butter in an appropriate vessel, in the ordinary way, the whole of the heat is evolved in a short space of time, and gives so intense a temperature that we speak of it as raising a thermometer to perhaps a thousand degrees. If we gradually eat an ounce of butter in the ordinary way and thus burn it in the body, we get the same total amount of heat from it as before, but that heat is evolved in a far longer space of time, and maintains the body during the whole of that time at about 98 degrees—the average temperature of the body. Not only does fat thus burn in the body, but all the other substances just mentioned similarly burn, maintaining the whole system at about 98° F. Some of the farinaceous foods mentioned may be converted in the body into fat, and this fat may be stored within us, occasionally to an inconvenient extent; but it is only stored, and will certainly during life sooner or later be burned. It is only right to add that in the place of so much heat some other force may be yielded by fuel-like foods, and thus the system be able to perform a certain proportion of its work by aid of the force yielded by such foods."

## THE FLUIDS WE DRINK.

After showing the necessity of water taken in one form or another, Professor Attfield said:—

From the standpoint of nature, some little interest—and from the standpoint of man, a great deal of interest—attaches to the use of stimulants in the fluids we drink; for it would seem to be not more instinctive to man to cook his food than to discover in nature, or by more or less of art to manufacture, substances which are almost purely stimulating principles. The instinct of man, in his uncultured and uncivilised state, and in widely separated countries, has led him to discover just those four or five plants, which even



now, so far as we know, are the only plants that, like the tea-plant, contain one and the same stimulant. Nearly everywhere, also, man's needs seem to have led him to the process—a perfect natural process, by the way; an accompaniment of the growth of the yeast-plant—by which sugar is converted into the stimulant termed *alcohol*. What is the use of such stimulants? Taken in *excess* they are poisons more or less insidious and harmful. The *theine* of tea, coffee, maté, and guarana is least liable to be taken in excess, and is least harmful. Alcohol is most likely to be taken in excess, and is, therefore, most harmful; or, in the epigrammatic words attributed to the Scythian prince Anarcharsis, "The first draught serveth for health; the second for pleasure; the third for shame; and the fourth for madness." If mankind, especially in civilised countries, would consent to live at a slower rate, the second draught would be unnecessary, and probably even the first. But mankind cannot now thus live, apparently.

Man's life was spacious in the early world:

It paused, like some slow ship with sail unfurled

Waiting in seas by scarce a wavelet curled.

Now, with civilisation has come the stimulation of alcohol or theine. The first draught and the second are taken by most of the youth and nearly all of the adult of both sexes, either as theine or alcohol; while, as alcohol, the third and the fourth are taken by sadly too many. Children do not need, and, indeed, rarely take, either alcohol or theine, nor, for that matter, either pepper or mustard with their food. These things are mere stimulants. They are not used in the early life of the individual, they were not used in the early life of the race. But swallowed in proper and moderate quantities, at proper times, in these days of civilisation, what office do stimulants fulfil in the system? It would seem, as stated elsewhere by the writer, that they do the important work of aiding the system, whenever necessary, to digest and to store up food, and to utilise its existing stores of fat and of flesh. In other words, the purpose of stimulants is, apparently, to stimulate the system the better to live upon itself, and the better to replenish its store of life-sustaining, work-performing flesh and blood. The imprisoned miner, having no food ordinarily so called, but having stores on his own frame, is able to exist for many days, if only, by a periodical sip of brandy, he can stimulate his organs to utilise those stores. The Indian performs a journey of two or three days on foot without any so-called food; but he really lives and works on the flesh stored in his frame, and lives satisfactorily if only he can chew his coca leaves, and so obtain the stimulus that shall induce his flesh to yield so much extra force. The invalid, unable to take solid food, can generally take stimulating beef-tea, and thus stimulate his own flesh to maintain his life until he again is able to take true nourishment. These are extreme cases of what appears to be the ordinary action of stimulants when taken in proper quantities.

The next section of the address related to "The air we breathe." Limited space, however, compels us to pass on to the subject of

#### THE CLOTHING WE WEAR.

From the extremes of heat and cold even the healthy frame needs the protection of clothes. Now, natural law requires that these fabrics be bad conductors of heat; garments that in summer shall allow the minimum of the sun's heat to pass through to the already over-warm body, and in winter shall allow the minimum of the warmth of the body to escape to the outer cold air. Oddly enough, the best non-conductor is air itself; but it must be non-moving, or very slowly moving, air; so that if we can manage to enclose a sheet of air between appropriate sheaths, or imprison it in an appropriate net, we shall have a typical garment both for summer and winter wear. Such a garment is found in the woollen clothes or flannel of the cricketer's summer suit, and the woollen dress or overcoat of winter. A blanket is a similar covering, of world-wide appreciation, against the escape of warmth from the body during a cold night. An eider-down quilt is a similar air-enclosing shield of wonderful lightness. These fabrics are those which best enclose a layer of air, and it is this layer of entangled and scarcely moving air which gives to them their usefulness. It is the air within the blanket or cloth of wool, not the wool itself, which arrests the passage of heat. So it is with cotton or with linen.

Place the hand on a layer of unspun cotton, commonly termed cotton-wool. The feeling is that of warmth. Spin the stuff into a thread and weave the thread into sheeting and place the hand on the sheeting. The feeling is that of coldness. Obviously there has been no change in the material itself, therefore it is the change in the condition of the material that has resulted in the change of effect from warmth to coldness. Either cotton itself or linen itself, that is, flax, is not by any means a bad conductor of heat; a sheet of cotton or of linen feels cold enough to the hand or foot; in other words it rapidly conducts heat away from the skin. Bring that same cotton or that same flax in the unspun or woolly condition against the skin and it feels warm. The fact is that, in the latter cases, very little of the layer of actual cotton or of flax, but a great deal of the entangled layer of air, is brought against the skin; and the layer of air, being a good non-conductor of heat, takes so little heat away that relatively we regard the materials as being warm. Wool or similar hairs of various kinds, silk, flax, cotton, are all useful as materials for clothes, the porous condition of the material rather than the material itself being the main consideration. Even skin, whether thick for foot-covering in the form of boots, or thin for hand-covering in the form of gloves, has its value for health purposes; but any extended use of such a slightly porous material as skin is inconsistent with the laws of health. The non-porous indiarubber waterproof clothing must only be worn when one desires to avoid the lesser of two evils, namely, the lesser disadvantage of over-action of the pores of the skin as against the greater dangers attending the wearing of wet clothes. These "waterproofs" must be taken off at the earliest possible moment.

The laws of heat govern the effect of the colours or pigments with which clothing is dyed as well as the effect of the material itself. A given fabric will reflect more heat if it is white than if it is black, and generally will have a somewhat varying power as a conductor or as a non-conductor of heat according to its colour. This influence of colour is of course greater in fabrics that enclose but little air than in those which enclose much air. The material of which a given pigment or dye is formed has some influence; different black dyes, for example, differing in their power of absorbing heat.

Chemical and physical science, speaking by the mouth of the goddess Hygeia, has little more to say respecting the laws which govern the clothing we wear. The voice of the goddess of ornamentation is much louder; while the lungs of the votaries of fashion, in one century of one sex, in another of the other sex, drown the voices of many goddesses, and ever produce a veritable Babel.

After mentioning other contributories to health, such as cleanliness, recreation, exercise, and rest, the President considered at some length "The dwellings we occupy," referring particularly to the importance of proper ventilation. Lastly he applied his consideration of the laws of nature in relation to health to the case of

#### THE TOWNS WE INHABIT.

The total amount of fluid and solid impurities of all kinds cast forth from the kitchens and other parts of more than a given number of houses per acre of ground—irrespective of dust-bin refuse which can be removed by cartage—quite overtasks the natural chemical purifying powers of that ground. Hence, in the first place, pure water cannot be obtained from wells sunk in such ground, and must therefore be brought to the town from some distant area by a system of open and closed mains and pipes. In the second place, especially with a somewhat larger number of houses, the total quantity of impurity cast forth becomes such a source of contamination, not only to the water of wells in the neighbourhood, but to the air, that it must be taken away from the town by a system of pipes, drains, &c., to some distant area. Here the laws of nature cannot be evaded; and their working is simple. A household must, in nearly every case, get its supply of water, say twenty or thirty gallons per head daily, from the earth, and when that water has done its duty of washing, cooking, &c., it must be returned to the earth. If the dwelling is isolated in an acre or so of porous ground, this intake of pure water and output of sullied water may go on within that area. If dwellings are crowded together, the intake of pure water must be from a distant area in one direction, and the output of sullied water must be to a distant area in another direction. But in both cases there must be ground whence to



draw the clean water and ground on which to cast the dirty water. In both cases too we may trust to nature, and we may implicitly trust her, to convert the impure water into pure water ready again for the use of man. For, be it remembered, the stock of water in the world never varies. The water man has used before he will use again, and again, and again; each time perfectly purified in nature's perfectly appointed laboratory. It may be that a given country, in its wisdom, believing that it is choosing the lesser of two evils, elects to send more or less of its sullied water direct to the rivers and so into the sea. In that case the only variation in effects—in the intermediate effects—will be that the country will *pro tanto* lose the manurial value of that sullied water. Further, to the extent to which a country thus incurs an expenditure larger than its income will it sooner or later become bankrupt. The result may not ensue for many generations, but come it must unless a true spirit of patriotism realises and avoids the evil. Be that as it may, the incidence of the laws of nature, fortunately, cannot be avoided. The sullage of sullied water is sooner or later burnt out of the water by the burning power of the air always being absorbed by such water, or with which the water comes into contact during its flow towards the sea or in the sea itself. From the sea, as already stated, the water is lifted into the air as cloud, and is carried back by winds again to fall in full abundance at the very feet of man.

The gregarious tendencies of human beings not only involve difficulty as regards the getting of plenty of pure water and the getting rid of that water when sullied, but also as regards the getting of abundance of pure air and the getting rid of that air when sullied. And the larger the aggregation of people the greater the difficulty. A human being in breathing renders a certain and rather large amount of air impure every moment of his life. Every scoopful of coal burned in a grate, every pound of burning candles, every pint of oil consumed in a lamp, every cubic foot of burning gas, renders impure a corresponding and very large amount of air. This impure air passes up and away into the atmosphere, sometimes under the laws of heat which harness and rein the wind, and always under the laws of diffusion. Fortunately the largest city is not yet so large as to interfere with impure air exhaled from throats and chimneys getting away sufficiently fast, and pure air taking its place sufficiently fast, to maintain millions of inhabitants in a fair state of health. The trouble rather is, at present, that owing to imperfections in the construction of domestic fire-grates and large furnaces, the fair and invisible gaseous product of the combustion of all fuel is accompanied by sooty, oily, and other fog-forming intermediate products. For this evil let us hope that art will sooner or later furnish a complete remedy. Nature furnishes the remedy against the accumulation of impure gas in the atmosphere generally; for the impurity which would be poison and death to the animal kingdom is food and life to the vegetable kingdom, and thus is the atmosphere, as a whole, kept always in a normal health-giving condition.

Another and, as regards the preservation of health from the attack of infectious disease, more serious source of contamination of the air of towns is to be found in the delivery of foul vapours from certain of the gratings at our very feet as we walk along our streets and roads. Now this subject is in several senses unsavoury, but it is one that affects the health of ourselves and the health and perhaps lives of our children. Therefore no apology is offered for its introduction. Indeed it is time that the public, men and women too, should speak out strongly, once for all, on the matter. There is a general impression, and it is probably a right impression, that we have gone a little too far in the matter of sewer-ventilation—a little too far in a wrong direction. We are told, doubtless rightly told, that certain fevers which decimated the inhabitants of our towns up to a hundred or even fifty years ago were probably largely due to the emanations from open urban ditches and similar collections of impurities. Well, we filled up the unsightly conduits, we avoided pestilential accumulations, and we substituted closed pipes and drains. But now, under some fancy that these tubular channels need ventilating, we adopt such mechanical contrivances as shall, or, at all events, may and often do, bring the noisome vapour to the feet of adults or children at any moment as they walk past the gratings in the ground, or, much worse, bring it to the mouths and nostrils of girls and boys as they play near or perhaps actually peer into the

grid-guarded caverns. True, we do not allow the contents of the passages to stagnate, as in old days, but so far as we ventilate them, that is, wash them out with air, and bring that possibly pestilential air to the lungs of human beings, to that extent we are making a retrograde movement towards the fever-breeding arrangements of pre-sanitary history. If our practice in this respect is right, we ought to increase the number of these gratings, or, indeed, have open iron-work along the whole length of these reeking aqueducts. But our practice, in my opinion, is not right. These mains do not need ventilation, or not as a rule. In our larger cities, wherever the horrid galleries are of a character to need workmen within them, ventilation is necessary for the sake of the men, lest they "be stifled in the vault to whose foul mouth no healthsome air breathes in." But such large mains generally run under wide roads whence the vapour can, through the gratings in the centre of the road, the more readily escape up into the atmosphere. At all events ventilation then offers the minimum of evil. But why drains into which a man never goes, which are in fact too small for a man to enter, should be ventilated is beyond my comprehension. Of course there must be no such pressure within them—caused by the rush of flushing-water or what not—so as to drive their vapour-laden air past the water-traps of our homes into the rooms in which we live. But some judiciously disposed vent-pipes, such as are largely used already, opening above the ground level, but not near windows or other inlets of houses, will prevent that result. These vent-pipes (do not call them ventilating pipes, for there should be no such current of air through them as constitutes true ventilation) can be kept clear by an annual or semi-annual inspection costing far less than the labour necessary for keeping clear the objectionable ground-level gratings. Some persons seem to be under the impression that poisonous gas is generated in these sullied-water passages, and that this gas needs to be diluted with as much air as can possibly be drawn into and out of the loathsome watercourses. Now the contents of these courses, in any properly regulated district, are never allowed to stagnate long enough to produce gas; secondly, even the stagnant stuff rarely produces a paltry few bubbles of gas; thirdly, such gas is probably harmless. No, the exact constituent causing harmfulness is not known, but what carries or conveys that constituent is the vapour of the smelling stream. There is not the slightest occasion to continue this loathsome, this repulsive vapour-carrying and perhaps fever-carrying process. To put the matter shortly and plainly. A sewer is like a scent-bottle. The longer you ventilate it the longer it will smell—while any fluid remains. Don't you want it to smell? No? Then don't ventilate it. Do away with the ground-level gratings altogether, except where men work in the gross galleries below; never attempt to ventilate, really ventilate, these tubes of turbidity; only where pressure is liable to accumulate place vent-pipes whose external orifice shall be far above the heads of the inhabitants of the town and as far as may be from the windows of houses. What is required is *vent*, not *ventilation*.

## MARRIAGE.

[*Notices of Marriages and Deaths are inserted free if sent with proper authentication.*]

PELL—PALETHORPE.—On February 9, at the Parish Church, Bingham, Notts, by the Rev. P. H. Droosten, Richard, second son of Joseph Pell, of Whatton, Notts, to Lizzie, only daughter of William Palethorpe, chemist and druggist, of Bingham.

## DEATHS.

LAKE.—On February 1, at 46 Bedford Street, Plymouth, Sophia Charlotte, widow of the late Richard Lake, chemist, of Plymouth.

THOMAS.—Suddenly, at Market Place, Boston, on February 3, John Ashlin Thomas, pharmaceutical chemist. Aged 42. The circumstances of Mr. Thomas's death are given in our Provincial intelligence.



## Medical Gleanings.

### POISONING WITH POTASSIUM CYANIDE.

THERE was lately treated at St. Thomas's Hospital a case of poisoning with cyanide of potassium, in which a very large dose was followed by recovery. The patient was a woman 30 years of age, and the quantity of cyanide which she took was "the size of an ordinary lump of sugar." This she chewed, swallowing the greater part of it, and became unconscious in a few seconds. Fortunately she was quickly discovered, and removed to the hospital, where remedies were at once resorted to. Artificial respiration, cold effusions and the like were first used, then the stomach pump, and lastly sulphate of iron and carbonate of potash. But it was necessary to keep up the artificial respiration, and to administer ether hypodermically, as when the former was stopped breathing ceased immediately, and the patient collapsed. Recovery followed in four days, in spite of the fact that about 40 grains were swallowed. This recovery was greatly due, no doubt, to the short interval (ten minutes) which elapsed between the swallowing of the drug and the commencement of the treatment.

### WHOOPIING-COUGH.

APARTMENTS in which children who are affected with whooping-cough have resided may be thoroughly disinfected by burning sulphur in them. All the bedding, playthings, and other articles that cannot be washed are exposed freely in the rooms in which the sulphur is burnt. The sulphurous acid is allowed to remain in the apartments for five hours before air is admitted.

### QUININE AMAUROSIS.

LARGE doses of quinine are well known to produce disagreeable head symptoms, but serious affections of the eyes induced by it are remarkably rare. A case of amaurosis produced by it is recorded by Mr. Edgar Browne (*Lancet*, p. 1,181). The patient, a powerful man of 34, was suffering from pneumonia, produced by a chill, and the temperature ran up to 105°. He took as much as 30 grains of quinine every two hours until 120 grains were taken. Within twelve hours deafness set in, and it was suddenly followed by total blindness, with great dilation of the pupils. From this the patient did not recover for six weeks, after which great difficulties were experienced owing to the telescopic vision which resulted, and which led the patient to run against things constantly.

### MULLEIN OIL.

THIS oil is highly spoken of by American practitioners as a remedy for otorrhœa and deafness. It is prepared by digesting mullein flowers in oil contained in a well-closed bottle, and exposing it to the action of the sun for three or four weeks, then draining off the brown oil which is formed. A few drops of the oil placed in the ear relieves earache in less than fifteen minutes. American homœopathic pharmacists retail the oil at a dollar per ounce.

### POSOLOGICAL NOTES ON SOME NEW REMEDIES.

*Osmic Acid* (used in Epilepsy and Sciatica).—Best administered in pill form made up with Armenian bole. The dose is  $\frac{1}{2}$  grain, which may be repeated several times a day. *Agaricine* (used for Night Sweats).—Best administered in combination with Dover's powder. Dose  $\frac{1}{2}$  to  $\frac{1}{4}$  grain. *Bismuth Salicylate*.—Dose from 5 to 7 grains, in pill form. In typhoid this dose may be doubled and repeated every hour up to 10 or 12 times. *Canabinone* (sedative and hypnotic).—From  $\frac{2}{3}$  to  $1\frac{1}{2}$  grain. Best administered mixed with finely-ground roasted coffee. *Colocynthin* (used subcutaneously).—The dose is from  $\frac{1}{6}$  to  $\frac{1}{2}$  grain. It may also be administered in pill form, by the mouth, the requisite dose being from  $\frac{1}{3}$  to 1 grain. *Convallamarin*.—Internally, in pill form the dose is from  $\frac{3}{4}$  to  $1\frac{1}{4}$  grain. *Nitroglycerin* (used in Angina Pectoris, and as a diuretic).—Rossbach prefers ether as a solvent. His formula is as follows:—Dissolve  $1\frac{1}{2}$  grain of nitroglycerin in sufficient ether, and add the solution to a mixture consisting of 2 oz. of powdered chocolate and 1 oz. of powdered gum arabic. Mix very thoroughly and divide into 200 pastilles. Each

pastille will thus contain  $\frac{1}{133}$  grain of nitroglycerin. *Picrotoxin*.—Dose from  $\frac{1}{8}$  to  $\frac{1}{4}$  grain for epilepsy in aqueous solution. *Sulphate of Thalline* may be given dissolved in wine or water (with some corrigent). The dose is from 4 to 8 grains, or 1 grain every hour.

### NOVEL TREATMENT OF DIPHTHERIA.

Two prominent Continental physicians claim to have had excellent results in treating diphtheria with sulphide of calcium in combination with digitalin and arseniate of quinine in the form of the following pills:—

					Grain
Sulphide of calcium	..	..	..	..	$\frac{3}{4}$
Digitalin	..	..	..	..	$\frac{1}{100}$
Arseniate of quinine	..	..	..	..	$\frac{1}{150}$
Fiat pil.					

Fig.: One every hour, day and night. The treatment to be continued for two days.

In the original paper there is some doubt about whether the dose is for a child or an adult; but, taking the quantities and the frequency of administration into consideration, it would appear that the above strength should represent the dose for adults, and should be diminished for children according to the recognised rules.

### TAPEWORM REMEDIES.

CHLOROFORM has been found very efficient against tapeworms. Doses of 30 grains have been given, repeated after twenty or thirty minutes, but troublesome cardiac symptoms may be avoided by giving smaller doses (a few drops) every few minutes for a few times. Thompson successfully prescribed chloroform, 5j. (by weight), simple syrup to 5j., to be given in three doses, at intervals of two hours, in the morning fasting, with castor-oil to follow.

AN Italian physician recommends thymol as a remedy for tapeworm. A dose of about half an ounce of castor-oil is given in the evening, when the patient should abstain from food, and take, next morning, two drachms of thymol, divided into twelve doses, one every quarter of an hour. About half an hour after the last dose has been given a dose of castor-oil should be administered. This is usually followed by the expulsion of the dead worm. Thymol quickly depresses the pulse, respiration, and temperature, and to obviate any ill effects from this cause frequent doses of brandy or spirits should be given at the same time. The advantages of thymol are said to be that it produces no disturbance of the stomach, is rapid in effect, is both a teniacide and a teniafuge, and, while certain in action, will do no great harm if an error in diagnosis has been made.

A correspondent of the *Med. and Surg. Rep.* states that he has met with a case in which the administration of the following mixture to a boy of nine years caused the expulsion of a tapeworm ten feet long. No directions as to the preparation of the mixture are given:—

Ol. terebinthinæ	..	..	..	..	3j.
Ol. chinamomi	..	..	..	..	3j.
Mist. cucurb. peponis	..	..	..	..	3xj.

The pumpkin seeds, say 1 oz., should be beaten up in a mortar, and an emulsion of them formed with water, similarly to mist. amygdalæ. The dose of the mixture is an ounce every hour.

RECENT trials appear to show that pelleteirine may be used successfully against tapeworm, especially in children. The dose for children from three to five may be from  $\frac{1}{2}$  to 1 grain in solution, followed in about half an hour by a brisk purge. The alkaloid does not appear to have the same physiological action on children that it has on adults.

### NEW PRESCRIPTIONS.

PAIN IN THE STOMACH after taking food, especially in cases of cancer, is stated to be relieved by a dose of the following mixture:—Tinct. conii, tinct. hyoseyami, ol. anisi, of each 5j.; tinct. gentianæ, ad 5j. Dose, ten to thirty drops after meals.

HEBRA'S LOTION gives good results in obstinate cases of dry and scaly eczema. The lotion is made from the following formula:—Carbolic acid, 4 parts; glycerine, 15 parts; sulphuric ether, 15 parts; alcohol, 90 parts.



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**THE BEST DISINFECTANT**  
 FLUID, OIL, POWDER, SOAPS,  
 TOILET & VETERINARY PREPARATIONS.

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*Friedrichshall.*

**THE WELL-KNOWN APERIENT MINERAL WATER.**

**IMPORTANT NOTICE.**

By reason of an improved method of caption, by which dilution is avoided **FRIEDRICHSHALL WATER** will be found now to be of **CONSIDERABLY GREATER STRENGTH** and **EFFICACY** than heretofore.

*The ordinary dose is a large wineglassful (4 ounces) taken fasting. Most efficacious and more acceptable to the palate when heated or mixed with an equal quantity of very hot water.*

"I know nothing at all equal to Friedrichshall. The **LONGER** it is taken the **SMALLER** is the quantity necessary to effect the purpose."

SIR HENRY THOMPSON, F.R.C.S., Lond.

Of all Chemists and Mineral Water Dealers. [2]

**HEARON, SQUIRE & FRANCIS,**  
 Wholesale and Export Druggists.

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1714.

**SOL. PICIS. CARBONIS—"HERON."**

**PHARMACEUTICAL PREPARATIONS IN VACUO.**

**COAL TAR SOAP—"HERON."**

**5 COLEMAN STREET, LONDON.**

SEE SEABURY & JOHNSON'S Advertisement of **INDIA-RUBBER POROUS AND SPREAD PLASTERS** on page 39.

**WOODHALL SPA**

**BROMO IODINE MINERAL WATER.**

*The strongest known Iodine Water in the World.*

This remarkable Spa has been purchased by a Syndicate of gentlemen who have determined to make more widely known the extraordinary curative powers of this spring, which contains more Iodine and Bromine than any spring in Europe—"And, we may safely add, in any part of the World."—*Dr. Cuffe, for many years late resident Physician at Woodhall Spa.*

An analysis of the water having been made in November, 1886, by Professor Wanklyn, M.R.C.S., corresponding member of the Royal Bavarian Academy of Sciences, Professor of Chemistry, a very important discovery has been made, viz., the presence of Free or Elementary Iodine.

Dr. Wanklyn says—"So far as I am aware, this is the first instance in which free Iodine has been found in appreciable quantity in a natural water. For many years the Woodhall Spa has been celebrated as a valuable remedy in skin diseases. The fact that it is a solution of free Iodine is interesting in this connection, and well worthy of the attention of the medical profession."

The Woodhall Bromo Iodine Water is now being bottled at the Spring by the Sole Agents, **BROMLEY & CO.,** Chemists, 233 High Street, Lincoln, 5 & 6 The Grove, Buxton, and at Woodhall. All communications to be addressed to them at the Spa, Woodhall, Horncastle.

**MUMFORD'S**  
**PURE FULLERS EARTH**

Finest powdered, 14s. per cwt.; in 7, 14, 28, 56 lb. Packages, 16s. per cwt net, bag included, delivered free in London. Samples post free. [3]

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**ELLIMAN'S UNIVERSAL EMBROCATION**  
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**RHEUMATISM LUMBAGO.**  
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**ELLIMAN, SONS & CO.**  
**SLOUGH, ENGLAND.**

**EDITORIAL NOTES.**

**THE REGISTRAR-GENERAL'S REPORT.**

THE report of the Registrar-General for the year 1885 has been issued somewhat earlier than last year, and, as usual, includes some information of interest to the drug trade. Since the last report, of which we gave a digest on May 29, 1886, the population of England and Wales has undergone a natural increase of 371,520, and making the usual allowances, 27,499,041 is put down as the number of persons in England and Wales at the middle of the year. The deaths during the year numbered 522,750, or a rate of 19 per million, as compared with 19.6 in 1884. This is remarkably low, and the reduction is attributable chiefly to improved statistics for the earlier periods of life, the death rates under forty-five years of age having been the lowest ever recorded, while those above have been somewhat higher than the average. It is noticeable that infantile diarrhoea, to which we specially referred last year owing to the very high rate, was in 1885 much less fatal, causing only 13,398 deaths, as compared to 26,412 in the previous year, and the deaths of infants under one year from this cause were less than one half of what they were in 1884. This is accounted for by the low temperature of the summer of 1885. The mortality from measles was, on the other hand, exceptionally high (526 per million), while scarlet fever caused fewer deaths than ever before, viz., 231 to a million living, this being partly due to diminished prevalence, as well as to a milder type of the disease.

That part of the report to which we have been accustomed to pay most attention relates to the deaths by violence, under which occur all deaths, accidental and suicidal, from poisons. There were 17,268 violent deaths in 1885; 14,939 were accidental and 2,007 were due to suicide. Of the total, 623 deaths were caused by poison, 343 accidentally and 280 by suicide. It is noticeable that for purposes of suicide females resort to poison far more frequently than males. Thus, of 478 females who took their own lives 102 swallowed poison, while only 178 males, out of 1,529 who committed suicide, used this means. Accidental poisonings occurred in much the same proportion among the violent deaths of both sexes. Thus out of 10,807 violent deaths of males from accidental causes, 221 were occasioned by poison, and the deaths of 122 females, out of 4,132 accidental deaths, are similarly recorded. The total number of deaths from poison shows an



increase over the previous year. In 1884 there were 310 deaths by accidental poisoning; in 1885 the number was 343; while from suicide the number was 241 in 1884, and 280 in 1885. As will afterwards be seen, the increase in the accident section since the last report is almost accounted for by the increase of deaths from opiates. It is necessary to point out, however, that the list includes numerous poisonings beyond the scope of pharmacy. In the accident section no less than 115 deaths were due to lead poisoning, alcohol, lucifer matches, poisonous herbs, such as yew-berries, which children eat, paraffin, poisonous foods, and kindred substances. There were also 18 deaths by poisons "not stated," but accepting all these as poisonous chemicals or drugs, we find the total number of what may be termed pharmaceutical poisonings to have been 226 in 1885, as compared with 200 in 1884. This increase, as we have stated, is more than accounted for by the number of deaths from opiates, which in 1884 were 62, and are now 92.

Poisons used	Accident	Suicide	Totals	
			Scheduled	Not scheduled
Opium, laudanum, morphia	92	49	141	—
Soothing syrup, cordial, paregoric .. ..	3	1	4	—
Carbolic acid .. ..	29	48	—	77
Cyanide of potassium ..	1	20	21	—
Ess. oil almonds, prussic acid .. ..	2	26	23	—
Oxalic acid .. ..	1	18	19	—
Strychnine, nux vomica ..	5	12	17	—
Vermin-killer .. ..	—	8	8	—
Hydrochloric acid .. ..	3	13	—	16
Chlorodyne .. ..	12	3	15	—
Phosphorus .. ..	5	9	—	14
Arsenic .. ..	2	10	12	—
Ammonia .. ..	8	2	—	10
Nitric acid .. ..	5	6	—	11
Chloral .. ..	8	—	8	—
Mercury .. ..	5	1	6	—
Aconite .. ..	5	1	6	—
Belladonna .. ..	3	2	5	—
Chloroform .. ..	2	2	4	—
Sulphuric acid .. ..	1	3	—	4
Caustic potash .. ..	3	—	—	3
Copper .. ..	1	3	—	4

Not included in this list are various substances, such as barium chloride, potassium bromide, creasote, cantharidis, sheep-wash, blistering fluid, corn-curing acid, and acetic acid, which were each the cause of one death by accident.

Apart from opiates the most noteworthy increase is in suicides with carbolic acid—48 as compared with 34 in 1884. There have been 5 fewer deaths from hydrochloric acid, and 4 less from sulphuric acid, but deaths from nitric acid have increased by 7, with 4 of these in the accident section. Chloral has decreased by 3, while chlorodyne has caused 12 deaths in the accident section and 3 in the suicide, as compared with the previous year's 6 and 1.

It is a remarkable fact that the accidents with opiates befall persons of mature years. Of 52 males who were thus brought to their end, only 17 were under thirty-five years of age, while 34 were between thirty-five and sixty-five, and of 40 females, 14 were under thirty-five and 24 were between thirty-five and sixty-five. This is to be expected from the fact that most of the deaths are due to overdoses of laudanum taken to procure sleep. It is no less remarkable that such an abhorrent substance as carbolic acid should be the popular poison of female suicides, 23 of whom, out of a total of 102, used this poison, whereas opiates appear to be the favourite with males, 35 deaths out of 178 having occurred through these. Females also use vermin-killers much more frequently than males, about 12 per cent. of the former, but only 3 per cent. of the latter, having resorted to this class of poisons. On the other hand, oxalic acid, hydrocyanic acid, and cyanide

of potassium are almost peculiar to the male sex. No less than 23 males used hydrocyanic acid and 16 cyanide of potassium, and it is safe to say that in all these cases the potency of the poisons was a matter of special knowledge, the former being the poison generally resorted to by physicians, chemists, and the like, while photographers, jewellers, soldiers, and others who use cyanide of potassium for cleaning purposes, take it as the readiest and surest means of cutting short their existence.

The Pharmacy Act was not intended to prevent suicide, but if deaths in this class from unscheduled poisons continue at the present rate, it would be wise to adopt means whereby their sale may be controlled in some way. Carbolic acid and the mineral acids are this year accountable for more deaths than heretofore, and these are deaths the preceding suffering of which is perhaps the most painful of any that results from poison. Moreover, those who do recover from the effects of the corrosive acids have before them, in many cases, an existence rendered most miserable in consequence of impairment of the gastric tissues, and any measure which would ameliorate these painful results would give general satisfaction.

### DRUGS IN 1756.

IN our issue of January 29 we printed a price current published by Mr. Joseph Boddington, a broker, of Fenchurch Street, in the City of London, on Saturday, July 24, 1756.

Mr. Boddington appears to have combined the functions of a colonial produce broker with those of a banker, bill-discounter, warehouse-keeper, and insurance agent. He expresses his readiness to procure, on approved security, any sum from 100*l.* to 1,000*l.*, and offers the benefit of his commercial experience to any "Gentleman or Lady" who desires to find a perfectly safe investment, yielding 5 per cent. per annum, for superfluous cash.

In Mr. Boddington's days the City merchants still resided in the house in which their business was carried on, and he announces with pride that, on his own premises, he is willing to warehouse fifty tons of miscellaneous merchandise, from Hudson's Bay castor to scarlet cloth.

But except for these characteristic footnotes and certain peculiarities of spelling, the price-list is not remarkably different from the general prices current which are still issued regularly by drug brokers and merchants. Yet how vast are the changes which have been wrought in the commercial aspect of the drug market since the worthy Joseph Boddington bartered in drugs, drysalteries, and spices, advanced money, and dabbled in annuities!

To form a correct idea of the conditions under which Mr. Boddington carried on business, it must be remembered that in the year 1756 King George II. still occupied the British throne. Our country was at that time engaged in a sanguinary and, until then, scarcely successful struggle with France, carried on simultaneously in Europe, North America, and the East Indies.

The American colonies were still loyal. In India the rival powers of the British and French companies had come into collision. But the fortune of war had turned against our adversaries, and Clive, having defeated the former, was about to extend British influence over the native States of Behar and Bengal. Holland and Spain, though their greatness was already waning, still ranked among the chief European Powers, commercially even more so than politically. The Continent in 1756 was in the throes of the devastating Seven Years' War, in which the combined powers of France, Russia, Sweden, and Austria endeavoured in vain to crush Frederick the Great of Prussia.



Our colonial empire was still in its infancy, although our West Indian colonies were certainly more prosperous than they have been of late years, and the East India Company had taken firm root in India. Canada was still a French possession, while Ceylon, Guiana, and the Cape were Dutch Colonies, and Australasia was practically a blank on the map of the world.

Mr. Boddington's list was evidently the joint production of himself and several fellow-brokers, whose assistance the former in his introduction courteously acknowledges.

Subscribers to the price-list had to pay half a guinea per annum for the privilege of receiving it—a charge, we apprehend, which no broker would dream of making nowadays, when low-priced and popular trade journals furnish better and more complete information than could possibly be vouchsafed by him.

The drugs quoted, "by the ounce" in Mr. Boddington's list are ambergris, musk, and bezoar, the two former of which are still sold by the same weight, though ambergris has several times multiplied its value. Bezoar stone is now, of course, quite an obsolete medicament in Europe.

Borax, saffron, and quicksilver are about the only articles in the next division which are no longer sold by the pound at the present time. Californian borax at that period was of course unknown, but as we find tincal quoted further down in the list, supplies of that mineral must then have formed the subject of a regular trade from the interior of Asia, by way of India or of the Levant. We presume, however, that most of the borax sold in London in the middle of the last century was of Tuscan origin. Mercury, though not then a monopoly of a wealthy banking firm, was worth twice its present value. Saffron was a good deal cheaper than now. The "English" saffron quoted in the list is probably that which was cultivated in Cambridgeshire and the surrounding counties. (Saffron Walden in Essex derives its name from the industry.) But saffron-growing was then already a dying industry in England, and suffered complete extinction in the latter part of the eighteenth century. For some unexplained cause our market, in 1756, carried no stock of Spanish saffron "in oil." With regard to this article, it appears from the foot-notes that the trade to India in European saffron was already of some importance in 1756. The drug is still extensively shipped to that country, where it plays an important part in the celebration of religious festivities, in medicine, and as a dyeing material. It may here be observed that saffron is also cultivated in Eastern Persia and in China, and that some very good specimens of the drug were shown in the Ceylon Court of the Colonial and Indian Exhibition.

Castorum was a highly valued remedy in Mr. Boddington's time, and the Russian and Hudson Bay varieties appear to have been newly introduced about that period, being marked respectively with a double and a single asterisk. As yet the encroachments of civilisation upon the beaver's domain in the New England States were unimportant, and, to judge by the list price, the bulk of our supply was derived from that quarter.

Among the new articles in the price-list *oculus Christi*, rhubarb (Turkey and Russia), ginseng, and jallop are also enumerated. By "*oculus Christi*" the seeds of the wild clary (*Horminum Sylvestre*, or *Salvia verticillata*) were probably understood. These seeds, when placed in the eye, become mucilaginous, and thus facilitate the extraction of any foreign matter which may have got into the eye. It is also possible that the term may have referred to the white *Oculina Virginea*, Lamarck, or coral, formerly employed in medicine, or the crab's stone (*Oculus cancerorum*), a concretion found in the stomach of the Russian crawfish, and obtained by washing the putrefied body of the animal with water.

Supplies of jalap may have been absent from our market for some time previous to 1756, but the tuber itself was certainly no novelty, for it had been brought to Spain in the time of Cortez, and was largely imported in England two hundred years before Mr. Boddington's list circulated. Ginseng, one of the staple products of Corea, and a household remedy in the Far East until this day, has almost disappeared from European commerce. The difference in value of Russian and East Indian rhubarb is very remarkable, but may, perhaps, be accounted for by the circumstance that the very best root only came to us by way of Russia, as it was the only quality accepted by the Muscovite Government caravans which carried the drug from China to Moscow. The inferior rhubarb probably found its way into India, and thence to this country.

Among the products of the New World, gum guaiac, Jesuit's bark, ipecacuanha, sarsaparilla, snake root, Peruvian balsam, and tolu balsam are quoted, each drug at rates far in excess of those now current. Guaiacum resin was at that time considered one of the most active and valuable drugs known, and was used as a remedy in a variety of diseases for which it is now never administered. Cinchona bark, of which so many varieties now appear in commerce that none but a few specialists can be said to possess a really thorough knowledge of the article, is quoted with refreshing simplicity in two varieties only: "Jesuit's bark opt.," at 3s. 6d. to 4s.; and "Jesuit's bark secund.," at 1s. 6d. to 2s. 6d. per lb. These two varieties are probably the bark known as "Loxa," and now chiefly consumed in France, for until 1752, that is, eighty-five years after the drug first appeared in the London Pharmacopœia, the habitat of the cinchona tree was believed to be confined to the neighbourhood of Loxa, in Peru, where the Jesuit missionaries first administered it as a febrifuge. Opium, senna, cantharides, and camphor have quite maintained their pharmaceutical reputation since Mr. Boddington quoted them, but the same can scarcely be said of manna and scammony. Camphor from Formosa, which island now furnishes a considerable quantity of our requirements, was probably unknown in 1756, for Du Halde, a French traveller, writing about that time, makes no mention whatever of any products obtained from the island of Formosa. We may take it, therefore, that the camphor then employed in Europe was obtained from the central provinces of China. Upon arriving in Europe the drug had to be sent to Holland to be purified, the process of camphor-refining then being the secret of a few Amsterdam firms.

Aleppo scammony is quoted by Mr. Boddington at 21s. per lb., that from Smyrna being only worth 14s. per lb. At that time the Aleppo scammony had an excellent reputation, which it has now altogether lost—in fact, very little root is now cultivated near Aleppo, the bulk of our present supply growing in the vicinity of Smyrna. The mode of collecting scammony had been for the first time accurately described by Mr. Russell, an English physician, at Aleppo, in 1752, four years before the issue of the price-list. The sarsaparilla valued at 2s. 1d. to 2s. 4d. per lb. was probably the Honduras variety, or that imported from Jamaica. Guatemala sarsaparilla was unknown on the London market until 1852.

Ipecacuanha had established a high reputation in European medicine long before Mr. Boddington's time. It was first used in Paris, by Legras, as early as 1672, and a few years later a Mr. Garnier, a pharmacist of that city, obtained 150 lbs. of the drug. In 1686, ipecacuanha finally obtained a footing in Europe through the exertions of Mr. Helvetius, a young Dutch physician practising in France, who claimed for it a wonderful efficacy in many diseases, and obtained from the King of France the sole right to employ it medicinally in his dominions.



Most of the drugs sold "by the C.," as the list has it, are now obtainable at values altogether out of proportion below those which they then realised. Socotrine aloes were worth from 13*l.* 10*s.* to 50*l.* 5*s.*, borax 32*l.* to 35*l.*, crude camphor 10*l.* 18*s.* to 17*l.* 10*s.*, cassia lignea 23*l.* 5*s.* to 46*l.*, asafœtida 35*l.* to 60*l.* 10*s.*, myrrh 23*l.* 15*s.* to 28*l.* per cwt. !

Cape aloes had not at that time made their appearance in the English market, but the Barbadoes variety had been known for half a century, while the socotrine species formed the subject of a direct trade between England and the island of Socotra. Both the Eastern and the Western varieties of cassia fistula were well known on the English market long before the middle of the last century; and we can scarcely account for the extreme price of cassia lignea, unless it should have been caused by a monopoly of importation on the part of the East India Company. For although the prices quoted in the list seem in most instances absurdly high, yet they do not appear to include customs duty, as may be gathered from the quotations given for pepper. The highest price for that commodity was 3*s.* 6*d.* per lb., which could scarcely include the duty—certainly not less than 2*s.* 6*d.* per lb.—levied on the article at the time. Italian, Portuguese, and Rhenish argols are quoted in the list, but none were imported from the Cape, notwithstanding the fact that wine was extensively grown in that colony by the Dutch settlers. Sal ammoniac, now worth 36*s.* per cwt., was held at 150*s.* to 171*s.* per cwt. in 1756. Its dearness may be accounted for by the fact that coal gas, and consequently the application of its by-products, were then unknown. At the latter end of the last century sal ammoniac was obtained in Paris by the union of ammoniacal vapour (yielded by the decomposition of animal matter in iron cylinders placed in a furnace) with hydrochloric acid gas, and this method may possibly have been known in England in 1754. Or the article may have been imported from India, where it is formed in brick kilns; or from Egypt, where it is manufactured by sublimation from the soot yielded by the combustion of camels' dung.

Galls, unlike most other drugs, were not much more expensive in Mr. Boddington's days than they are now. Aleppo galls were worth 75*s.* to 88*s.* per cwt.; from Tripoli, Smyrna, and France no supplies were available. China galls, which had been imported into Europe as early as 1724 under the name of "Oreilles des Indes" had fallen into disuse, and it was not until 1844 that they again reappeared as a commercial article.

#### AUSTRALIAN ARGOL.

In last week's drug sales in London there were sold some parcels of red and white argols, amounting to half a ton, which had been imported from New South Wales, and which formed, we believe, the first consignment which has come to this country. The red argols sold readily at from 90*s.* to 97*s.*, and the white at 100*s.* We have so long been dependent upon France and Spain for this important commodity that supplies from British colonies cannot fail to command the interest and attention of merchants. For many years argol has been regularly received from the Cape, and, so far, the quality of the argol imported from South Africa has been moderately good. But with the development of wine-growing, which seems to be assured in Australia, the supply from that source is likely to be an important factor in the market. The cultivation of the vine was commenced in the Australasian colonies nearly half a century ago, and has since been fostered in a very enterprising manner, as well as in a scientific spirit. The methods of cultivation and the processes for manufacturing wine which are followed in the wine-producing countries of Europe

have been carefully studied, and both soil and climate seem to be well adapted to place Australian wines, and consequently other grape products, in a commanding position in the near future. Some idea of the importance of the industry may be gathered from the fact that in the Rutherglen district of Victoria there are 3,000 acres devoted to viticulture, the estimated production of which is 750,000 gallons of wine annually; and this does not represent one half of the present production over the whole of that one colony. In South Australia, where vine-planting was commenced in 1840, there are now about 5,000 acres under cultivation, with an annual production of 500,000 gallons. New South Wales has the credit of having started the industry in Australasia, and the total production of that colony is equal to that of Victoria, there being several vineyards which produce 40,000 gallons and upwards annually. It will be seen, therefore, that with stocks representing at least three years' harvests the yield of argol must be enormous, and increasing. The juice of the grape in the unfermented state contains the acid tartrate of potash in solution; but with the change of the sugar into alcohol the solvent power of the liquid is diminished, and the tartrate is deposited as argol within the casks while the wine is fermenting and maturing. The normal composition of argol shows it to consist of acid tartrate of potash, tartrate of lime, and colouring matter; but the custom in some wine-producing countries of plastering the wines introduces a large percentage of earthy constituents, including barium, so that argols containing half their weight of calcium tartrate have been met with. The argol which was sold last week was of superior quality, and the price obtained for it should induce a constant supply. One sample of the red variety which we received was in semi-translucent crystalline pieces over a quarter of an inch thick, and of a pale claret colour. Its solution in water possessed a faint vinous odour. The sample yielded 93.5 per cent. of acid tartrate of potash, 3.5 per cent. of tartrate of lime, the rest being colouring matter, glucose, and vegetable refuse. The sample, therefore, compares well with other commercial argols, which rarely contain more than 90 per cent. of acid tartrate of potash.

#### Reputed Blistering Beetles.

In the beginning of January it was mentioned in our report of the Mincing Lane drug sales that two cases of red-coloured beetles were exposed for sale, which were reputed to possess blistering properties. The peculiarity of these beetles is the red-coloured body, a similarly coloured proboscis and two red patches immediately above the points of insertion of the wings, which are of a brown colour. The beetle is the same size as the cantharis, and has an odour, especially when bruised, exactly resembling it. We submitted a specimen of the beetle to the curator of the Pharmaceutical Society's museum, and he has ascertained it to be the *Huechys sanguineus*, of the family Cicadidia, N.O. Hemiptera. In China the beetle is used as a blistering agent, and for this reason, evidently, it has been sent to this country. The strong cantharidis odour would seem to give weight to the supposed blistering properties, but, on putting the matter to test, we have ascertained that there is no ground for the supposition. An ethereal tincture, one part of which represented two parts of the drug, produced a momentary feeble irritation when applied to the skin, but no vesication resulted. Chemical examination showed the absence of cantharidine and other alkaloidal principles, but a solid fat was obtained in large percentage, and this appears to be the most notable constituent of the flies. We understand that there is no likelihood of the beetles being again exposed for sale, as the consigners have satisfied themselves that they are not wanted. This is satisfactory, as, if the beetles were ground up along with cantharides, it would be somewhat difficult to detect the admixture, except by microscopic examination.



Myers's Cattle Spice. Mr. Justice Smith rendered very emphatic testimony to the value of trial by jury in his judgment at the Liverpool Assizes on Tuesday in the case of *Myers v. Wood*. Myers and his cattle-spice are well known to many chemists, and we have received many letters concerning them. There does not seem to be anything very irregular or unusual in the manner in which this inventor proceeds in his business. He recommends his spice, gets written contracts from his customers, and draws on them at six months. But somehow, in a large number of cases the spice will not sell, and, fairly or unfairly, Mr. Myers has acquired an unfortunate reputation in the North and the Midlands. In the case heard at Liverpool, Myers would seem to have had the best of the case legally, but Mr. Justice Smith, before whom it was tried, happened to have heard one of Myers's cases before at Leicester. On that occasion, he said, he had certainly thought that on the evidence before him Myers was entitled to a verdict, and he had done his best to give him one. But the special jury knew more than he did, and found for the defendant; and the jury, said Mr. Justice Smith, did justice.

## Legal Reports.

### COLZALINE AND COLZARENE.

THIS curious trade-mark case came before Mr. Justice Stirling on February 10. The plaintiffs, the Protector Lamp and Lighting Company, Eccles, Manchester, registered the word "Colzaline" in December, 1882, as an old mark. The defendants, Ogilvie & Co., Newcastle, registered their word, "Colzarene," in January, 1885. It was admitted that plaintiffs' oil was not made from colza. The defendant, Ogilvie, stated in his affidavit that the oil sold by his firm could not be used in the plaintiffs' lamps, and was about three times the price, so that it was impossible that purchasers could be misled into buying defendant's oil under the belief that it was the plaintiffs'. The plaintiffs, in reply, denied some of the above statements, and stated that there was not much difference in the price of the two oils, and that the defendant's oil could be burned in the "Protector" lamps, though it was not fit for the purpose, and would soon choke them up. To this the defendant rejoined that his oil was only supplied to large consumers, not to retailers, and that on examining the plaintiffs' oil he found it was not an oil but a petroleum spirit. Mr. Aston (for the plaintiffs) having addressed the Court, Mr. Hastings (for the defendant) submitted that the time during which the defendants had used the term "Colzarene" without a suggestion of fraud was sufficient to prevent an injunction being granted at this stage; and, with regard to the rectification of the register of trade-marks, he submitted that the plaintiffs' mark was not entitled to protection, being calculated to deceive the public into the belief that the article was prepared from colza oil. If necessary, he would give immediate notice of motion to remove plaintiffs' mark from the register. Mr. Dawney, who was with Mr. Hastings, said, in answer to the Court, that the defendants would undertake not to sell their oil for use in "Protector" lamps. On this undertaking the motion was ordered to stand to the trial, the undertaking also being given to serve notice of motion to remove the plaintiffs' mark from the register.

### CLARKE'S BLOOD MIXTURE.—CLARKE v. JESSOP.

IN the Chancery Division of the High Court of Justice, on Friday, February 11, before Mr. Justice Kay, Mr. Cutler moved, on behalf of the plaintiff, for an injunction to restrain the defendant from infringing the plaintiff's trade-mark for the well-known medicine called "Clarke's Blood Mixture." Terms had been arranged, under which the defendant agreed to treat the motion as the trial of the action, and submitted to a perpetual injunction, and paid 10% costs, the plaintiff waiving his claim for damages. Mr. Justice Kay made the order in the terms arranged.

The defendant in this case, we understand, is a chemist at Oxford, and the label he used was headed with the words "Blood Mixture" simply, in which title, as is generally known, Mr. Clarke claims a trade-mark right. We are in-

formed that Mr. Clarke obtained injunctions in two similar cases in the month of January against West of England chemists; but as we did not obtain our own reports of these, we do not give details.

### THE HOP BITTERS COMPANY.

MOTIONS in the action of the Hop Bitters Co. v. Lorimer & Co., and the Hop Bitters Co. v. Beck came on on Thursday before Mr. Justice Stirling, when by arrangement between counsel the motions were treated in the same way as the motion which was argued on the previous Thursday—namely, no order to be made on the motion except that the costs abide the trial of the action, to which was to-day added that, if the actions be dismissed or discontinued before trial, the costs to be costs in the action. Mr. Aston, Q.C., on behalf of the plaintiff company, informed the Court that, having regard to what fell from his Lordship last week, plaintiffs would not send any threatening letters or circulars to the defendants' customers.

### MONTSERRAT LIME JUICE.

THE case of *Evans v. Smith* was mentioned in the Chancery Division on February 11, before Mr. Justice Kay. The motion is to restrain the defendant from infringing the plaintiff's registered trade-mark, and for an injunction to prevent the defendant from passing off his goods as and for the goods of the plaintiff by the improper use of the word "Montserrat." Mr. Aston, Q.C., who appeared for the plaintiff, stated that affidavits had just been filed on behalf of the defendant, which he desired to answer; whereupon Mr. Justice Kay ordered the motion to stand over for a week.

### BANKRUPTCY REPORT.

HENRY VON LEESNER, COUNT EBERSBERG, Cannon Street, E.C., Manufacturing Chemist.

IN the London Bankruptcy Court, on Tuesday, before Mr. H. Brougham, an Assistant Official Receiver, the first meeting of creditors was held under this failure, particulars of which were published in our last issue. The debtor had a proposal to pay his creditors in full in six months, providing certain negotiations for the sale to a new company of the business of the Icicle Company, in which he has a large interest, could be conducted to a successful issue. It was, however, stated that an adjudication in bankruptcy would prevent the sale. There was not a quorum present, and the meeting was adjourned, to enable a fresh first meeting to be applied for to consider the offer.

## Trade Notes.

MR. DIGGINS, chemist, Glastonbury, who is retiring on account of ill health, has disposed of his business to Mr. Tucker.

THE business of Mr. G. F. Tuck, Fore Street, Tiverton, who is retiring from the trade, has been purchased by Mr. Joseph Munday.

MR. CRAWSHAW tells us that a fair number of competitors have sent in their verses in honour of the crystal dyes manufactured by his firm, but he still hopes to hear from more of our readers. Messrs. Crawshaw & Co. offer prizes of two guineas and one guinea on conditions set forth in their advertisement. Poems are to be sent in during February.

CASCARA SAGRADA CAPSULES.—Messrs. Duncan, Flockhart & Co. of Edinburgh, inform us that they are making an extensive distribution to physicians of samples of their cascara capsules, which we noticed as a novelty some time ago. The capsules are filled with a specially prepared fluid extract, which is three times stronger than the B. P. preparation. The firm have appointed Messrs. W. Edwards & Son, 157 Queen Victoria Street, E.C., their agents for London.





AND

## Literary Notes.

*A Systematic Handbook of Volumetric Analysis.* By Francis Sutton, F.C.S., F.I.C. Fifth edition. London: J. & A. Churchill, New Burlington House. 1886. Pp. 502 8vo. 16s.

SCARCELY four years have elapsed since the publication of the fourth edition of the familiar "Sutton," and now we find another called for. This demand has given the author an opportunity of thoroughly revising his work, and the result is a rewriting of some parts of the volume and the incorporation of much valuable matter which has been published during the past four years. Revision is particularly observable in that part of the work devoted to alkalimetry. Thompson's careful work with the indicators derived from azo colours, such as methyl orange and phenolphthalein, is succinctly described, and his results carefully adapted to certain processes. The incorporation of many new methods for the determination of alkali as it exists in the various residues and products familiar to the technical chemist has greatly enhanced the value of this portion of the book. One of the beneficial results of the establishment of the Society of Chemical Industry has been a close association together of chemists engaged in alkali manufacture, and frequent interchange of opinions upon laboratory work has resulted in greater uniformity in methods and standards than was hitherto the case. Mr. Sutton has taken full advantage of this, so that the student who works by his book has the assurance that the more important alkalimetric methods have not only been devised by chemists of repute, but are generally used in large laboratories. Another section which has been carefully revised and supplemented is that devoted to nitrates and nitrites, and, as related thereto, the estimation of free oxygen, to which there has been added a much-needed chapter on the estimation of hydrogen peroxide. Under Schlösing's method for the determination of nitrate in the presence of organic matter a representation and description of the apparatus devised by Wildt and Scheibe are given. With this apparatus the operation can be carried out with considerable facility and great accuracy. The work done by Warrington in this branch of chemistry since the publication of the fourth edition is also summarised, and a full description given of his admirable modification of Schlösing's method. The chapter on nitrites has been added to, but curiously, although Allen's work is referred to previously, there is no mention of his method for estimating nitrites (based upon the reaction between them and an alkaline iodide in presence of an acid), or of Rykman's method with ferrous sulphate, both of which have been adopted in the British Pharmacopœia for the assay of spirit of nitrous ether. These processes being more easily applicable to the estimation of alcoholic nitrites, and even nitrites of inorganic radicles, than the permanganate method, deserved at least a reference.

In order to keep the work as near as possible of the former size, and to make room for the introduction of new matter, several sections have been much condensed and others have been entirely excluded. Of the latter the more notable are the volumetric analysis of soils and manures, which, the author considers, were of little value. The wisdom of completely excising these sections may, however, be questioned, especially in a work which is universally recognised as a standard. Some account, however brief, of the volumetric methods which are used in the analysis of manures would have been useful. The space provided by the excision of these chapters is taken up with an appendix to Part V. treating of the analysis of boric acid, oils and fats, glycerine, phenol, &c., and a copious extension of the methods of gas analysis, together with an account of the nitrometer and its uses. Considering the mass of published matter, English and foreign, which has been examined in order to bring the work up to date, it is remarkable that the author has been able to keep his volume within reasonable limits, and this has only

been possible by the exercise of the experience and knowledge which he has brought to bear on his task. It is noticeable also that many of the processes, if not all, have been proved by himself, so that thereby additional value is given to them. As a whole this edition is a great advancement over the last towards completeness and in usefulness.

*Manual of Practical Pharmaceutical Assaying.* By A. B. Lyons, A.M., M.D. Detroit: D. O. Haynes & Co. 1886. Pp. 151. \$1.25.

IN this little volume Dr. Lyons has brought together the best-known processes for assaying drugs whose potency depends more or less upon alkaloids, or whose active ingredient is an easily isolated body. There has been a want for a book which the ordinary pharmacist may use in his laboratory, the works which have hitherto been published being better adapted for research work than for that which is required in examining new parcels of goods, and we believe that Dr. Lyons's book will supply the want. The author gives descriptions of the general methods for the assay of crude drugs, fluid extracts, solid extracts, and tinctures, in regard to their alkaloidal content, as well as for proximate principles generally. The estimation of alcohol, glycerine, pepsine, spirit of nitrous ether, and bodies of a kindred nature is also treated. In describing the methods which have been proposed by various authorities, the author adds such critical comments as have resulted from his own practical experience. These, as a rule, are fair, and generally the suggestions are important. This is especially the case regarding the use of Mayer's solution as a quantitative reagent. There is, perhaps, no method employed in alkaloidal analysis which is so liable to give varying and discordant results as the method of precipitation with this solution. In the course of a chapter devoted to the subject, the author says, "the practical deductions to be drawn from . . . observed facts are that to secure uniform results in titrations with Mayer's reagent, it is necessary that the solutions operated upon shall have as nearly as possible a uniform strength, and that the reagent shall always be added in exactly the same manner." It is precisely these deductions which lower the value of the method in research and in ordinary analytical work, for it is obvious that, starting with a drug whose alkaloidal value is unknown, it is not possible to secure the more important condition, that is, practical uniformity of solution both as to alkaloidal content and the nature of the other ingredients present. Other methods, whereby the alkaloid is separated in a more or less pure condition and weighed, remain, therefore, the best which we at present have in this important department of chemical analysis. Of these numerous examples are given in this little work, the drugs selected being those which it is desirable from a therapeutical point of view to have of a recognised standard. Under opium we are surprised that the author has not noticed Conroy's modification of the U.S.P. method, which is a distinct improvement, and that the B.P. method for assaying cinchona is not given. We observe also that the author claims as his own a method for the estimation of amyl nitrite (a modification of Allen's method for estimating ethyl nitrite) published by him in June, 1886; but practically the same process was communicated to the British Pharmaceutical Conference in August, 1885. The general usefulness of the work is not, however, affected by these faults, and it is one which will be found exceedingly useful to pharmacists.

*Chemical Lecture Notes.* By H. M. Whelpley, Ph.G. St. Louis, Mo. Published by the author. 1886. Pp. 148. \$1.

THIS volume is an amplification of the notes taken by the author of Professor C. O. Curtman's lectures at the St. Louis College of Pharmacy. The notes relate to chemical physics and inorganic chemistry. They should prove useful to students who attend the special course of lectures from which they have been derived, or to others who may attend any similar course in the United States. But it is questionable if the notes will be useful to the student of chemistry who has not been previously enlightened, simply because they are so greatly condensed. The book contains many valuable facts and figures which the author has tabulated, and which give the little volume value as a reference book.



## Trade Report.

*Note to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.*

*It should also be recollected that for many articles the range of quality is very wide.*

42 CANNON STREET, E.C., February 17.

**B**USINESS has been fairly active since our last report, although exporters complain that the uncertainty of continental affairs continues to interfere with the regular course of business. Until the result of the pending elections in Germany is known there will be little amelioration in this respect. Fortunately trade in the United States continues very brisk, if not buoyant, and the requirements of that country, consumptive and speculative, compensate in a measure for the momentary stagnation in continental business.

The result of Tuesday's *cinchona* sales was rather disappointing to holders of *quinine*, and there seems little prospect of a pronounced improvement in that important article just at present, unless the shipments from Ceylon should show a considerable falling-off. There is, no doubt, a large business doing in America in *quinine*, but much of this is thought to be of a speculative nature. *Salicine* is very firm, and there appears to be an impression that a movement in *iodine* is contemplated. Smyrna advises report a further advance in the price of *opium*, but, so far, *morphia* and *codeia* are still quoted as before. *Carbolic acid* is scarcely to be had for prompt delivery, and *tartaric acid* is very firm. On the other hand, *citric acid* is quoted lower. *Belladonna* root is reported very scarce on the Continent, pointing to a possible advance in *atropine*.

*Bleaching powder* has attracted much attention. Best brands are to-day quoted at 9*l.* in London and 8*l.* on the Tyne. It is stated that Tyne makers have sold at the latter price as far ahead as June next. The American market, a most important customer, is very firm, and stocks are reported small in the States. It is also thought that with the approach of the mild weather large Russian orders will come in. The association of producers in the North of England seem fully determined to continue their agreement by which the output of the article is prevented from assuming unmanageable proportions.

*Soda crystals* are also likely to make a move for the better, as the chemical makers on the Tyne decided yesterday to further restrict the production by an additional 10 per cent.

Drysalteries are quiet and partly cheaper; most varieties of *shellac*, for instance, could not maintain their value at Tuesday's auctions. *Turmeric* and *Galls* are also quiet, but *Gambier*, which would be among the first articles to advance in case of war, is very firm.

Important news comes from Cairo. It is stated in the official Egyptian journal that the commercial communication with the Soudan was reopened on the 13th inst., and caravans from that region will now be permitted to pass through Wady Halfa, and from there northwards. If the rumours about the large accumulations of gum arabic and other African produce stored at Khartoum, Berber, &c., are true, we may now expect to receive supplies within a reasonable time. The Trieste gum market has been influenced by the disturbances in Abyssinia, but this has not been the case as regards London and Liverpool. Spices are very quiet. A good *pepper* crop being reported, that article will probably continue to decline, although it is one much affected by speculation. The new crop of Cochin *ginger* is now arriving, and sells freely.

*Cottonseed* and *fish oils* are dearer, but *petroleum*, *cocoanut*, and *olive oil* are lower. The Italian crop of the latter article is referred to below.

The continued cold in Southern Europe argues badly for the prospects of the French crop of essential oils, which must now be put on the market shortly. Should the unfavourable weather continue, *neroli*, *tuberose*, *violet*, *petit-grain*, *geranium*, and *jasmine* may be expected to suffer in the first place. Disquieting rumours from Constantinople about the *attar of rose* prospects remain unconfirmed.

The stock of *cubebs* in the United States is estimated at 7,000 lbs., not sufficient to cover two months' consumption; and it is thought in some quarters that as the summer approaches the scarcity of the article will become still more pronounced.

*Cod-liver oil* again attracts attention, for reasons stated below, but it must not be overlooked that alarming rumours are regularly started at the commencement of each season. Still, the reports on this occasion are generally accepted as correct in the main.

The port of Salonica has now been placed in direct railway communication with Central Europe, by the virtual completion of the Salonica-Belgrade Railway. There is some prospect that Salonica will supersede Brindisi as a route for all Eastern mail traffic from Austria.

ACID (CARBOLIC) is exceedingly scarce. *Crude acid* is held at 5*s.* 3*d.* per gallon, good white *crystals* in drums at 1*s.* 6*d.* to 1*s.* 8*d.* per lb.

ACID (CITRIC).—There are now sellers at 1*s.* 10*d.* per lb., but no buyers, apparently, at that figure. The Sicilian holders of *concentrated lemon-juice* have recovered from their panic, but no reliable quotations are given. Mr. G. Ainis, writing from Messina under date of February 9, remarks:—A stop in the demand for a fortnight has much frightened speculators, who were seized by a panic, and in their hurry to realise accepted as low a price as 19*l.* 5*s.* f.o.b. for lemon juice. A reaction has now set in, and holders ask higher prices. Owing to local speculation, and the existence of large quantities of old stock the market will undergo continuous oscillations in the future. Consumers are advised to buy from hand to mouth, as there is certainly no fear of the article being in short supply.

ACID (OXALIC) is somewhat less firm, and offering at 3*¼d.*

ACID (TARTARIC) is very firmly held, and a large business has been done during the week, especially in foreign acid for forward delivery. We quote—*English*, 1*s.* 7*d.* per lb.; *Foreign*, 1*s.* 6*¾d.* to 1*s.* 6*¼d.* per lb. In Italy tartar materials are in good demand at steady prices, and everything which is placed on the market is bought up quickly by the consumers.

ALUM.—The demand is very steady, and prices remain as follows:—*Loose lump*, 5*l.* 10*s.* per ton; *Ground*, in bags, 6*l.* 2*s.* 6*d.* per ton.

AMMONIA (SULPHATE) slightly easier, at 11*l.* 15*s.*, in London, and 11*l.* 15*s.* to 11*l.* 16*s.* 6*d.*, in Hull. The tone of the market at the present moment is uncertain. While there are fair quantities offered, sellers are not prepared to accept the ideas of buyers, and the market is decidedly without animation. It is to be remarked that the continental markets have not followed the upward course of prices, and it would appear that the high figures paid from time to time during the past two months have been paid by the dealers or consumers in this country only. Business with the continental markets has been practically impossible at anything like the parity of 12*l.* per ton f.o.b. here. When the market here is in that position, the continental buyers look on with complete indifference. With nitrate of soda under 10*l.* per ton, business in sulphate of ammonia at recent prices will be restricted within the smallest possible limits.

ARSENIC.—The demand continues to be good, and *White* is still held firmly for 11*s.* 6*d.* to 11*s.* 9*d.* per cwt.

BORAX steady, but rather quiet at last quotations.

CAMPHOR (REFINED).—Our quotations of last week still hold good, but the article is reported somewhat firmer in tone.

CREAM OF TARTAR is held at 123*l.* 10*s.* to 124*l.* for firsts on the spot.

GLYCERINE.—One large German maker now quotes 75*l.*, but there are still so many second-hand holders offering at



much lower rates that it is impossible to obtain anything like this price.

**IODINE** still remains unchanged at 9d. per oz., but the market is very firm. *Iodides* also are extremely steady; *potash* quoted at 12s.

**LEAD (ACETATE)** remains firm and scarce at 22s. 6d.

**MORPHIA**, firm at 6s.

**POTASH**.—*Bichromate* is still quoted at 3½d. *Chlorate* is firm at 6½d. *Prussiate* remains quiet at 7d.

**QUININE** is very quiet, but prices remain unchanged nominally. The result of the cinchona sales this week has not been of a nature to increase the firmness of the article, although the market in America is reported very strong. A quantity of German quinine in second hand was forced for sale, and changed hands at 2s. 2d. per oz., the official quotation being 2s. 3d. for German in bulk.

**SALICINE**.—*English* and *German* makes were quoted at 27s. 6d. in the beginning of the week, *Scotch* brands remain at 50s. It is said that further large orders are in the market for American account.

**SODA**.—*Ash* 1½ per degree landed; *bicarbonate* firm at 7l. 5s. per ton; *caustic* remains unaltered at 7l. 15s. for cream and 8l. to 8l. 5s. for white 60 per cent. *Crystals* are very firm at 2l. 12s. 6d. London, 2l. 5s. 6d. on the Tyne. *Nitrate* still rules at 9l. 10s. to 9l. 12s. 6d.

**SULPHUR**.—There is little inquiry for this article. *Flowers* are quoted at 9s. 3d. to 10s. per cwt., *rolls* 7s. 6d. to 8s. per cwt., according to brand.

**CINCHONA BARK**.—At the periodical auctions held on Tuesday a total supply of 5,747 packages was offered. Nearly 2,000 of these consisted of **SOUTH AMERICAN** barks of indifferent quality, which met with no demand. Good cultivated *Calisaya* bark from Bolivia, however, always finds a steady sale, and realised from 11½d. to 1s. 4d. per lb., the latter price for fine quill.

Nearly the whole of the large assortment of **CEYLON BARK** found purchasers, but in many instances slightly lower values were accepted, owners showing themselves ready to realise.

The following prices were paid:—*Succirubra*—Natural branch, partly mixed with chips, 1½d. to 7d.; stem chips, young to good strong, 3d. to 6d.; spoke shavings, 4½d. to 9d., the latter price for very strong bright; root, 3d. to 9½d.; quill, irregular to good bold druggists', 10½d. to 1s. 4d.; ditto, renewed, common woody to medium fair, 4d. to 10½d.; good and fine rich shavings, 11d. to 1s. 3d. *Officialis*—Natural branch and chips mixed, 3d. to 9d.; stem chips, 5d. to 1s.; spoke shavings, 5½d. to 1s., the latter price for a lot of exceptionally fine quality; root, 5½d. to 1s. 2d.; renewed, 8d. to 1s.; fine rich to exceptionally fine spoke shavings, 1s. 1d. to 1s. 10d.

**INDIAN BARK**.—272 packages were all quickly disposed of, red branch at 1d. to 4d.; chips, 4½d. to 8d.; shavings at 5d. to 11d.

**JAVA BARK**.—106 packages (18 cases 44 bales and 34 bags) were all disposed of. *Succirubra* chips, mixed with quill, 8d. to 10d.; short quill, 11d.; silvery quill, about 3½ feet in length, but rather weak and partly damaged, 9½d. to 11d.; ditto, sound, good silvery, partly mossed, 1s. 2d. to 1s. 3d. *Ledger*—Dust, 6d.; branch, chips, 10½d. to 1s.; chips, strong quilly, 1s. 3d. to 2s. 2d.; root, 1s. 11d.; renewed, 1s. 4d.

**CAMPHOR (CRUDE)** is very quiet, and held at from 65s. to 67s. 6d. per cwt. for freshly imported to old *Japan*. For *China* camphor about 1s. less is asked. It is reported from *Formosa*, the island whence all the Chinese camphor placed upon our market is said to be derived, that the exports of that article are rapidly dwindling, and may soon cease altogether. It is said that all the camphor forests on the hills near the coast have been burned by the Chinese in the war which they are carrying on with the natives. Forests of camphor trees still exist further inland, but as yet they are difficult of access.

**COCOA BUTTER**.—On Tuesday 84 2-cwt. cases *Cadbury's* brand were sold without reserve at 12¼d. (one lot at 12¾d.) per lb. These prices show the considerable decline of from

¾d. to 1d. per lb. on those obtained in public sale on February 1.

**CUBEBS** are still very scarce, and held at 23l. per cwt. for genuine berries. A New York firm, largely interested in the article, call attention to the fact that the consumption of cubebs in the United States last year exceeded 48,000 lbs. The present supplies in that country are estimated at less than 7,000 lbs., which have to cover the demand for that period of time, with the probability that European markets, which are all very bare, will have to draw supplies from America. The quantity sold during January of last year was over 12,000 lbs., at about half the present price. Notwithstanding this enormous advance, there have been fully 8,000 lbs. sold during this January.

**GUM ARABIC**.—The reopening of trade with the Soudan *via* Wady Halfa may cause African gums to go cheaper after a while. For the moment our stock of *Turkey sorts* is almost exhausted. Two bales sold in auction at 15l. and 16l. per cwt. respectively. The market is without change on the whole; there are a few inquiries, but we do not hear of much business. Quotations for *Barbary gum* are maintained. Brown gum is exceedingly scarce, and what little comes to hand has been of only ordinary quality. *East Indian Gums*: Good Aden gum is held at 110s. to 112s. 6d. per cwt., and for this class of gum there are several inquiries. Amrad kinds maintain their value. East Indian Barbary character is quoted 115s. *Egyptian Amrad gum* is more liberally offered, but with sellers prices are fairly maintained. The market of *Ghezira* and *Talca* shows no change, but orders come in very slowly. In *Senegal gums* there is no business to report. There have been rather considerable arrivals of Galam, and holders are somewhat anxious to sell at 122s. 6d. to 125s. per cwt. Bas du Fleuve remains scarce and dear at 130s. to 132s. 6d. per cwt.

**GUM OLIBANUM**.—The extreme prices asked by owners of good varieties preclude business. The article is very firm, and the following prices are now quoted:—Good to fine pale first drop, 45s. to 60s. per cwt.; pale red and yellow sorts, 31s. to 42s. 6d.; dark pickings, or garblings, 10s. to 15s.; siftings, 10s. to 13s. 6d. per cwt. Our stock at the beginning of the month was 4,233 chests, against 5,188 chests at the corresponding period of the previous year. The new crop will shortly be due.

**GUM TRAGACANTH**.—On February 11 about 1,100 cases were offered for sale by public auction. The demand was languid, and owners had to accept lower values in order to realise.

**MUSK**.—Our stock is still very low, although three or four cases have arrived since our last report. These, however, contain not only *Tonquin* of all grades, but also *Yunan* and *Cabardine* musk. It is expected that some fine *Tonquin* musk will be offered for sale next Thursday, but it is scarcely likely that the price will show any reduction. Fine to selected first pile *Tonquin* musk in pod is held at 88s. 6d. to 90s. per oz.; fair *Yunan* at 45s. to 48s. per oz.; Russian *Cabardine* at 15s. per oz.

**OIL (COD-LIVER)**.—Advises from Brettesnaes, on the Norwegian coast, dated 8th inst., state that the stormy weather still continues. There are now only about eight weeks left until Easter in which to do the fishing, and, should the unfavourable weather hold on, the catch is likely to be very small. A subsequent report, dated 16th inst., states that the Norwegian fishing has commenced under very unfavourable circumstances, storms having continually been impeding the catch, and caused great damage to the vessels. These circumstances, in connection with the fact that the livers of the fish caught in Lofoden proper until now had been very deficient in oil, influenced holders of old oil, and prices were 1s. per gallon higher, while for new oil fancy prices were asked. The future position of the article must become clear in a very short time, and if the fishing continues as it has begun, those who have made their purchases may, perhaps, find cause for congratulation. A Hamburg firm write that, although steam-refined *Lofoden* oil was quoted there nominally at 90s. to 95s. per cask, they have unsuccessfully offered 110s. for this oil.

**OILS (ESSENTIAL)**.—*Bergamot* firm at 7s. 6d. to 8s. 6d. *Cloves* slightly lower; *English* quoted at 7s.; and *cubebs* at 32s. per lb. In oil of *lemon* a very good business has been done at 6s. 6d. to 7s. 6d. for good to fine. Oil of *patchouly*



is very scarce at 37s. 6d. per lb. Reports have been received from Constantinople that the excessive cold prevailing in Bulgaria has caused considerable anxiety as to the prospects of the crop; but so far these rumours remain unconfirmed. There is rather a heavy stock of otto in London, but much of it is of inferior quality. Virgin otto is quoted at 25s. per oz.

OPIUM is very firm, and another small advance was reported from Smyrna to-day, *Karahissar* being now quoted at 13s. per lb. The reports of damage to the spring sowings are fully confirmed, and the crop is certainly not likely to be a large one.

QUILLAYA BARK is arriving in considerable quantities both at London and in Hamburg.

SAFFRON.—Good to superfine Valencia is now quoted at 41s. to 44s. 6d. per lb. The *Oil, Paint, and Drug Reporter*, commenting upon the recent advance in the price of American saffron, observes that—"Twenty years ago the average price of the article was 16s. 8d. per lb., and the raising and gathering of the flower formed one of the industries of the States of New York, Pennsylvania, and Ohio. Gradually over-production forced the price down, until in 1870 saffron was selling at 2s. per lb., and notwithstanding a momentary improvement, the industry became unremunerative and was relinquished. Mexico then came to the rescue of consumers, the climate of that country seeming to be particularly adapted to the propagation of the plant, which circumstance, coupled with cheap labour, permitted the Mexicans to supply the market notwithstanding the gradual reduction in selling prices. But even with their natural advantages, the Mexicans have now begun to find the occupation unprofitable, and the crop of 1886 was allowed to go to waste because the prices that could be realised by the producers would not pay for the gathering of it.

ST. IGNATIUS BEANS.—Fresh arrivals at Hamburg have reduced the price there, and 7½d. to 7¾d. per lb. is now quoted.

WAX (VEGETABLE).—The market has declined about 6d. per cwt., 50s. 6d. per cwt. having been accepted for good hard whitish squares. On February 1 our stock was 1,299 packages, against 1,882 in 1886. Hamburg reports mention that an improvement has occurred on that market, a speculator having entirely cleared out the stock in first hand.

CUTCH.—The market recently showed rather more animation, but at present it has again relapsed into a very lifeless condition. Prices remain nominally unchanged, say, *Star B* at 33s. 6d., *double Eagle*, at 37s., *RS Slabs* at 28s. 6d. to 29s., soft *YTC* at 25s. per cwt. on the spot. *Flag BB*, forward delivery, has been sold at 33s. 6d. per cwt.

GALLS.—*China* have been sold at 59s. per cwt. for good quality, which is a fraction below the previous quotation. *Japan* are quoted at 53s. to 55s. per cwt. Our total stock of Chinese and Japanese galls on February 1 was 2,390 cases, against 3,164 cases at the same time in 1886. The market is quiet. In the drysaltery sales 2 cases *Japan* and 1 case *China* galls, ordinary quality, imported *via* Hamburg, were sold at 51s. per cwt.

GAMBIER.—A very fair business is being done in this article. *Block* is now quoted at 21s. 6d. per cwt. on the spot, and 21s. 3d. per cwt. for arrival. Good free *Cube* gambier is held at 32s. per cwt. At auction this week 600 bags, more or less blocky cubes, were offered, and all bought in at nominal prices.

SHELLAC.—Most varieties have declined in value since our last report, second orange lac only remaining unchanged. The latest reduction has brought the price of garnet lac slightly more in harmony with that of second orange, but the former variety is still dear as compared with the latter. In public sale on February 15 a larger quantity was offered than has been placed in auction for some weeks. Altogether 628 chests were catalogued, the bulk consisting of the *second orange* variety. Holders showed themselves willing to accept reduced prices, in fact, the bulk of the supply was offered "without reserve," and nearly the whole quantity catalogued was consequently disposed of, *first orange* at 3s. to 4s., *garnet* at fully 3s., and good *button lac* at from 1s. to 2s. reduction

per cwt. *Second orange* maintained its value fairly well. The following prices were paid:—*First orange*: H in diamond, somewhat dark in colour, 61s. to 62s. per cwt., chiefly the former price; same mark, unworked and with Calcutta weight, 58s. *Second orange*: Fifty cases B in octagon, exceptionally fine pale, unworked, with Calcutta weights, at 62s. per cwt.; VSO, fair quality, at 55s. per cwt.; MJ in house, fair, at 48s. per cwt.; same mark, unworked, Calcutta weights, 47s. per cwt.; HB in octagon, rather dull, at 47s. per cwt.; SCSR in diamond, 47s. per cwt.; NM in house, 47s. per cwt.; same mark, unworked, Calcutta weights, 46s. per cwt.; J in diamond, dull, 45s. to 46s. per cwt. *Garnet*: Fair to partly blocky A.C., unworked, Calcutta weights, 43s. to 44s. per cwt. *Button*: M in diamond, fine pale, of old import, 59s. per cwt.; CA in house, ordinary to fair first, 54s. to 55s. per cwt.; same mark, very good second, 54s. per cwt.; RB, over circle, dull, partly blocky third, 46s.; RB, ordinary third, 45s.; RB over circle, fourth quality, 31s. per cwt. Calcutta reports, dated January 25, state that a steady demand prevailed during the fortnight, and sales are reported of about 800 cases ASSL and double triangle G at 28 rupees to 28 rupees 8 annas, a long line of Octagon B for several months forward at 25 rupees, and several hundred cases of diamond SS and circle SD at 23 rupees to 23 rupees 8 annas, with good sales of T.N. quality at 20 rupees 4 annas for forward delivery. The market closes steady.

STICKLAC.—The market is quite neglected at 33s. to 34s. per cwt. for good *Siam*. In public sale 92 cases *Siam*, good, free from wood, to blocky, were bought in at 37s. to 36s. per cwt.

TURMERIC.—The market is quiet, and the following are the ruling quotations: *Bengal*, 11s. 9d. to 12s. 3d. per cwt.; *Cochin*, in finger, 10s. 3d. to 12s. 3d.; in split bulbs, 6s. to 7s.; *Madras*, in finger, 8s. 9d. to 11s.; in bulbs, 7s. to 8s. 6d. per cwt. 353 bags *Madras* were offered for sale on Tuesday; part of these, consisting of fair bulb, was disposed of at 8s. 6d. per cwt.—a good price; yellow wormy finger bought in at 10s. 3d. nominally. A Calcutta report, dated January 17, states:—A good business has been done in mixed qualities for London, about 6,000 to 7,000 bags sold, and the market is firm at quotations, with stocks reduced to 5,000 maunds of all descriptions.

CASTOR OIL is very firm, with sales at 21½d. per lb. for good *seconds* at Liverpool. On January 17 the Calcutta market was very animated. Large sales had been made for London.

COCOANUT OIL is slowly falling in value. Present quotations are for *Ceylon* in pipes, 26l. to 26l. 5s.; ditto in hogsheads, 26l. 10s. *Cochin* in pipes, according to quality, 35l. 10s. to 37l. *Mauritius* in barrels, 26l. 10s.; in hogsheads, 27l. to 27l. 10s.

COTTON-SEED OIL.—The price has made further progress since our last report, and closes firm. *Crude*, on the spot, at 16l. 10s. *Refined*, on the spot, at 18l. 5s. to 20l. 5s., according to brand; February–April, 18l. 5s. to 18l. 10s.; May–August, 19l. Hull prices: Spot, casks, 17l. 10s.; February–April, 17l. 17s. 6d.; February–June, 18l.; May–August, 18l. 7s. 6d. *Crude*, spot, 15l. 5s.

FISH OILS.—*Sperm* oil is firm, with buyers at 52l.; common sorts are in demand. A good quality of *Whale* oil has changed hands at rather better rates, 19l. 10s. being now required for pale. *Seal* oil is very firm and scarce, the present quotation for pale being 22l. to 22l. 10s.; and for tinged, 20l. 10s. to 21l. Newfoundland *Cod*, 23l.

LINSEED OIL.—The market is quiet at the following rates: On the spot, in London, pipes, waterside, 20l. 12s. 6d.; land, 20l. 12s. 6d.; barrels, 20l. 15s.; March–April, 20l. 15s. to 21l.; May–August, 21l.; September–December, 20l. 12s. 6d. to 20l. 15s. Hull prices are: Spot, 20l. 7s. 6d. to 20l. 15s.; month, 20l. 10s.; March–April, 20l. 10s.; May–August, 20l. 10s.

OLIVE OIL.—All varieties are lifeless. *Mogadore* is held at 32l. 10s. to 33l., the former quotation being probably nearest actual value; *Smyrna* at 34l., *Messina* at 34l. to 35l., and *Spanish* at 36l. to 37l. In Sicily the market is dull and values are declining.

The Italian Minister of Commerce has issued a report on the olive crop of Italy, dated February 10, from which the



following is abstracted:—The Italian crop has yielded 2,438,000 hectolitres (1 hectolitre=about 22 gallons), or 72·8 per cent. of an average crop. About three-fourths of the oil will be of good, and the remainder of medium quality. The crop has been a very small one in Liguria (on the right and left riviera of Genoa), in Calabria, in the neighbourhood of Naples, and in Sardinia. The harvest may now be considered at an end throughout the country. On the Genoa market fine oil is scarce, but there is plenty of low-class oil to be had. In the south-eastern parts of Italy the crop has been exceptionally rich, but the oil from that quarter, usually classed as Bari oil, is of a very low quality.

**PALM OIL.**—*Lagos* is again quoted lower in London, being now held at 23*l.* nominally. In Liverpool business is dull.

**PETROLEUM OIL** still declining. To-day's quotations are: *American* on the spot 5½*d.* to 5¾*d.*, month 5 9-16*d.* to 5¾*d.*, March 5½*d.*, September-December 5¾*d.* *Russian* on spot 5½*d.*, to 5¾*d.*, March 5¾*d.*. The fall in prices is in some quarters attributed to the caprice of the few holders who control the stock, although a series of most rapid passages has to be recorded, owing to the favorable winds lately prevalent. With the easterly wind the consumptive demand has increased, but the weekly deliveries still fall short of last year's. The large quantity of oil in stock and afloat would cause belief in lower prices, but for the impression that the bulk of this oil is controlled by a few speculators, by whom it is expected that an attempt at causing an advance will be made. Messrs. W. H. Samuel & Co., of Liverpool, thus describe the outlook of the article:—"As regards future prospects, it is rather early in the year to form any reliable conclusion as to the probable course of prices next season, especially in face of the somewhat disturbed political situation. On the whole, however, we think indications point to the probability of low prices next season. Up to the present the trade have manifested a distinct preference for American oil over Russian oil, but if the former continued for any length of time to be much higher in price than the latter, the demand for American oil would probably rapidly dwindle to a low level, and as the facilities for the delivery of Russian petroleum from the seat of production are being slowly but surely perfected and cheapened, it would seem that a cheap supply of Russian oil in the future is certain, and such being the case American oil must be low too. It is, however, difficult to see how American oil can touch a lower level of prices than it has done occasionally during the present season."

**RAPE OIL** is very steady, but with moderate business only, at 23*l.* 5*s.* for English refined on the spot. English brown on the spot quoted at 21*l.* 15*s.* to 22*l.*; February-April, 21*l.* 15*s.* to 22*l.*; May-August, 21*l.* 15*s.* to 22*l.*; September-December, 21*l.* 15*s.* to 22*l.*

**ROSIN** firmer at 4*s.* for common strained *American* and upwards, to say 12*s.* 3*d.* for finest water white.

**TALLOW.**—*St. Petersburg yellow candle* is quoted at 31*s.*, *Australian* at 27*s.* 6*d.* to 30*s.* 6*d.* for good to fine mutton, and at 24*s.* 6*d.* to 25*s.* 6*d.* for ditto beef.

**TURPENTINE** is still slowly declining in value. *American spirits* on the spot are quoted at 28*s.* to 28*s.* 3*d.*, and March-April at 28*s.* 3*d.*

**ARROWROOT.**—The following prices are now paid: *St. Vincent*, ordinary to medium, 1½*d.* to 2¼*d.*; *Natal*, 3*d.* to 3¼*d.*; *Queenland*, 1½*d.* to 1¾*d.* per lb.

**CAPSICUMS.**—In sale on Wednesday 137 bales *Madras* were sold at 17*s.* 6*d.* to 19*s.* per cwt. for dark to fair reddish, but small.

**CASSIA LIGNEA.**—A quantity of 470 boxes being forced for sale "without reserve," the price declined from 26*s.* to 25*s.* 6*d.* and 25*s.* per cwt.

**CLOVES.**—Holders are exercising caution and do not press forward supplies, hence the article fairly well maintains its value. Middingling *Zanzibar* is quoted at 11¼*d.*; fair *Amboina*, 11½*d.* to 11¾*d.* per lb.

**GINGER.**—There is a fair demand for *Cochin* of the new crop, of which 580 packages were offered for sale on Wednesday, and nearly all sold at unchanged values, viz., shrivelled and scrapings, 12*s.* to 13*s.*; rough, small and ends mixed, 25*s.* to 29*s.*; good to fine bold rough, 35*s.* 6*d.* to 42*s.*; picked

bold rough, 50*s.* 6*d.*; cut, small and ends mixed to small only, 32*s.* to 37*s.*; fair to fine bright medium cut, 42*s.* to 54*s.*; dull to good bold cut, 70*s.* to 88*s.*; fine selected bold, 100*s.* and 111*s.* *Cochin* of the old crop is neglected. *Jamaica* and *Bengal* ginger without demand.

**PEPPER (BLACK).**—Very little is doing, and the article is very quiet. In public sale this week 308 bags were bought in. Privately 7¾*d.* per lb. has been accepted for *Singapore* on the spot, and 7½*d.* per lb. forward delivery (January shipment). At *Singapore*, on January 17, the market was weak and values declining. A further drop was anticipated, arrivals coming in freely from the interior.

**PEPPER (WHITE).**—The market is quiet, with a declining tendency. In public sale one lot good *Penang* was disposed of at 11½*d.* per lb. The production of *Singapore* white pepper for 1887 is expected to show a falling-off as compared with the previous season.

## THE AMERICAN MARKET.

NEW YORK, February 4.

THE activity in our drug market still continues, and, in some articles, is increasing. The general consumptive demand all round is good, and considerably above the average for this time of year.

The prices sterling (in parentheses) are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can therefore see at a glance the course of this market compared with their own.

**BUCHU** has been forced up to 35*c.* (1*s.* 7*d.*) for both short, round, and long. This advance is purely the result of a "corner," and, it is thought, will not be able to be maintained for long.

**JALAP.**—There has been a very active home demand at 14*c.* (7½*d.*), and stocks are now very low. A large house here is reported to have bought the bulk of the stock in Hamburg. Advices from Mexico speak of the collection of the root being quite neglected, owing to the low price, and that no large quantity can be expected to arrive this season.

**OIL OF PEPPERMINT.**—Buying of the oil in Wayne county has almost come to an end, for there is very little left now in the growers' hands there; while from Michigan it is reported that the holders of oil in that region have combined to hold their product off the market till the season of demand sets in during the summer. The position of the article is certainly very strong. The dealing this year, both here and in London, has been free from the manipulation or "worked" process, to which this article has been subject for some seasons, and thereby brought into disrepute. A firm market may be looked for, with, perhaps, a rise in prices as stocks diminish. During the early part of this week cable orders were received from London at \$3.65 (16*s.* 9*d.*), and from Hamburg at \$3.60 (16*s.* 6*d.*), for, in the aggregate, 250 cases of H. G. Hotchkiss brand, but could not be filled, for there is not that quantity available at present, and the stock here is held at \$3.75 (17*s.* 3*d.*). Bulk oil has also advanced to \$3.35 (14*s.* 1*d.*) for strictly pure Wayne county, and \$3 (13*s.*) for Michigan.

**QUININE.**—The movement continues to grow, with every prospect of higher prices before long. It is thought by some that it is quite possible we shall see dollar quinine before long, but those who ought to know best seem to think that, although the present advance may be maintained and perhaps increased, such a material improvement will not take place yet.

## AMERICAN CABLEGRAM.

NEW YORK, February 17.

**QUININE.**—The market continues to be firm, with an active demand.

**OIL OF PEPPERMINT,** although it cannot be said to be very brisk, is yet firmly held, and the price remains unchanged since last report.



**POTASSIUM BROMIDE.**—Manufacturers of this preparation have effected a combination, and the price for 100-lb. cases has been advanced to 37c., equal to 1s. 7½d., less 5 per cent., c.i.f. British port.

**ERGOT OF RYE.**—A continued large consumptive demand has caused a considerable rise in the price of good *Spanish* ergot within the last few days.

### HUNGARIAN PRODUCE

(From an occasional Correspondent.)

BUDAPEST, February 10.

**THE** stock left from the last crop of medicinal plants is now beginning to be seriously reduced, and we are gradually commencing to consider the prospects of the coming crop. It is all the more necessary to be early in the field in estimating the probable result of the new crop, as the time of gathering the various articles is very different, and the gathering is spread over many months.

**ALKANET ROOT** has been much inquired for by French, German, and American purchasers. Orders, however, can only be executed slowly, in consequence of the reduced supply. Fine selected root is quoted at 34s. per cwt.; fair picked, at 28s. per cwt.

**BELLADONNA LEAVES** have been in very good demand for all qualities, and the exportation is steadily increasing, especially to North America. Our stock has been much reduced, and is held at the price of 42s. to 44s. for first, and 34s. to 36s. per cwt. for second quality.

**BELLADONNA ROOT.**—Notwithstanding the enormously heavy arrivals of the last season, we are now without stock, and the orders now here can only be executed after some months, viz., when the new crop shall have been collected. At present our exporters have already so many German, English, and American orders on their books, that the elevated quotation of the last season will probably continue to rule. Nominally the price is 50s. to 54s. per cwt.

**BUCKTHORN BERRIES.**—Our stock is quite exhausted.

**CANTHARIDES.**—Since the commencement of the season prices have risen 100 per cent., advancing from 4s. 6d. to 9s. per lb.; but now values are again slightly easier, and no doubt 8s. 9d. per lb. would buy the 10 cwt. still remaining.

**CHAMOMILES.**—Flowers of the common variety are selling steadily. About 80 cwt. are still unsold; the price required varies from 45s. to 55s. per cwt.

**ELDER BERRIES.**—The gathering yielded exceptionally good results, but the crop sold pretty briskly. There are still about 40 cwt. of inferior quality left. These are held at the price of 40s. per cwt.

**ELDER FLOWERS** of good quality are extremely scarce, the crop having been a poor one. Prime quality is held at 42s. per cwt.

**ESSENTIAL OIL OF JUNIPER** is likely to become a very prominent article of export from this country, especially to North America. The recently-distilled oil is of exceptionally good quality. Orders have been executed for German, American, and English account at 2s. 2d. to 2s. 4d. per lb., not including packing.

**HYOSCYAMUS.**—The yield has been a very small one, and the few parcels offered were quickly bought up by German and American houses.

**JUNIPER BERRIES** have recently been exported from Hungary to France and Germany in large quantities and at increasing prices. Since the latter half of December, however, the demand has been on the wane. Our stock of, say, 100 tons is held at about 7s. per cwt.

**RED POPPY PETALS.**—Holders would be glad to realise their remaining supply. They ask from 85s. to 95s. per cwt.

**STRAMONIUM.**—The low values prevailing for this drug have caused the collection to become neglected, consequently the yield last season was very small. The United States have not yet purchased as large a quantity this season as they did

in the previous year, and further orders are still expected from that quarter. About 25 to 30 tons are still procurable at 16s. 6d. per cwt.

Messrs. C. F. Böhringer & Sons, of Mannheim, have sent us an annual review of the cinchona market, and of the preparations manufactured by their firm.

As regards **CINCHONA BARK**, it is pointed out in the review that under normal conditions—i.e., in the absence of wars or epidemics—the production of bark is almost the only factor regulating the price of quinine.

The consumption of quinine is not only steadily increasing, but is capable of an enormous extension, particularly so because the alkaloid is without a serious competitor. None of the numerous substitutes which have from time to time been placed upon the market has been found to possess all the virtues of quinine.

The world's consumption of quinine was estimated at 3,510,000 oz. per annum in 1879, and afterwards at 4,237,000 oz., but it is probably much larger. At the conference of American wholesale druggists last year, the consumption of quinine in the United States, formerly estimated at 100,000 oz., was put down at 2,600,000 oz. per annum, or about 1 oz. for every twenty-three inhabitants. The demand for quinine is certain to gradually increase in other fever-stricken parts of the globe. A large outlet is particularly looked for in the rice-growing provinces of the Chinese Empire, where fever is never absent, and where quinine might advantageously supplant opium to a certain extent.

Among the minor alkaloids of cinchona bark, cinchonine, cinchonidine, and quinidine are still largely used in extra-European countries, although they have fallen out of use in Europe.

Quinidine, the action of which most closely resembles that of quinine, occurs only in very small quantities in the present manufacturing barks, and its extraction no longer pays.

**COCAINE.**—Discussing the recent advance in the price of the crude material, Messrs. Böhringer & Sons state that, although no long-continued scarcity of coca leaves is to be anticipated, yet the exports from South America may for a time remain under the requirements. The price of leaves on the principal markets last autumn left no margin to shippers, and although improvement may have at once been reported by cable, important shipments could not reach here until after a lapse of four or five months.

**CARBOLIC ACID IN CRYSTALS.**—At the commencement of the year—a time when the article is usually at its lowest ebb—the enormous purchases for account of foreign Governments have caused an advance of 100 per cent. as compared with last year's quotations. The increased requirements during 1887 for technical purposes only are estimated at about 500 tons. In Germany a good many foreign orders still remain unexecuted. Second-hand holders, and manufacturers who treat their own crude material, being completely sold out, a considerable reduction in price cannot be expected; on the contrary, a further advance may be looked for unless the sanitary condition of all countries remains exceptionally good.

**ATROPINE** has been in very brisk demand throughout the year, and manufacturers have had some difficulty in executing the orders they received. Large American and English orders have increased the price of belladonna root, and every available parcel was soon taken out of the market. Recently some root has again been on offer, but prices still remain very high.

**CAFFEINE** is frequently employed as a substitute for digitalin in affections of the heart. It is generally administered in the form of easily soluble salts—sodio-caffeine-benzoate; sodio-caffeine-salicylate. Its action is more rapid than that of digitalin, and it is said to have been efficacious in instances where the latter article had given no result. Von Schroeder has recently called attention to the diuretic effect of caffeine, especially in combination with paraldehyde, and the independence of its action as a diuretic to that which it exercises on the heart has been demonstrated. Caffeine is also an ingredient of many English and American proprietary preparations.





### The Trade Association and Public Analysts.

SIR,—Permit me to reply to a few of the many paragraphs in Mr. A. H. Allen's letter in your issue of to-day, in which my name is specifically mentioned, leaving the remainder to be dealt with by others to whom certain of his remarks more particularly apply, if, in their opinion, rejoinder of any kind is desirable.

This storm in a tea-cup arose from the publication in THE CHEMIST AND DRUGGIST of the report of a committee drafted by me, but for which those who passed and issued that report are responsible, notwithstanding Mr. Allen's opinion to the contrary. In that report the following words were used:—"The local authorities, however, withdrew the summons, and also another summons down for hearing on the same day, in which '850 spirit of nitre had been sold." Mr. Allen in his former letter flatly contradicted "the statement that a summons was issued against the vendor of '850 spirit of nitre." And he now adds, Mr. Haydon states that the vendor wrote to him in these words:—"My assistant sold 3 oz. of sweet nitre '850 when called upon by an inspector. Was Mr. Haydon so green as to believe the vendor's statement that the inspector went into the shop and asked for 'sweet nitre '850'? If not, Mr. Haydon had no right to describe it in the report as '850 spirit of nitre,' especially when it was labelled 'Spirit of Nitrous Ether,' which name, the purchaser informs me, correctly describes what he asked for."

I have not said, nor did I state the vendor said, that the inspector asked for anything. To say a person sold "3 oz. sweet nitre '850 when called upon by an inspector" is one thing *which was said*. To state "that the inspector went into the shop and asked for sweet nitre '850" is another and altogether different thing, *which was not said*, but which Mr. Allen inquires if I am "green" enough to believe. I frankly confess that I believe the statement of any person unless I have reason to disbelieve him. I have no reason to disbelieve the vendor of the article in question when he informs me that '850 nitre was sold, nor have I any reason to doubt a further statement made to me by him that the bottle was labelled "Sweet Spirits of Nitre," although that is a direct and absolute contradiction of Mr. Allen's statement that it was labelled "Spirit of Nitrous Ether." It might have been, and probably was, so labelled by the inspector *after* the purchase was completed, and the sample divided as required by the Act of Parliament. I have not previously touched the question of what the inspector asked for, or what he chose to label the bottle after it left the hands of the vendor's apprentice, as, in my opinion, it does not in any way affect the question of what was sold. I adhere to my original statement that '850 spirit of nitre was sold, and I am quite prepared to still stand as "a felon," to use Mr. Allen's simile, with my plea of "Not guilty" entered upon your record to that gentleman's charge, and leave the decision to your readers.

Your correspondent does not think either Mr. Bennett, of Stockport, or "anyone connected with the defence" of the summons issued against him in 1880, has reason to be proud of the proceedings at the hearing of case No. 8 on my list. I am, however, very proud of that, perhaps, most successful of all the defences undertaken by the Association. Mr. Allen has most unaccountably confused the "charge" brought against the defendant with the article sold. To charge a man with selling an adulterated article is one thing, to prove that charge to the satisfaction of a bench of magistrates is another. In that case the charge was proved to be an absolutely false charge, '850 nitre having been sold, and the summons was consequently dismissed, 10% being allowed to the defendant for extra costs.

Mr. Allen denies that "by any flight of imagination" his former letter can be correctly stated to have anything to do with "pharmaceutical politics." He is welcome to the denial. Denials do not necessarily obliterate facts. Leaving

"flights of imagination" out of the question, surely when the President of the Society of Public Analysts distinctly charges the Trade Association with "discreditable" practices, some of your readers may be pardoned if they consider that such interference in pharmaceutical politics, from such a quarter, amounts to meddling with matters outside the scope of a public analyst's legitimate vocation. I venture to think, sir, that I should not have received during the last three weeks the sum of 400% from the wholesale and retail drug trade of this country, including five guineas from the proprietors of your Journal, in support of a fund I am raising to carry on the work of the Association, if you or they considered we had brought discredit on the trade. Perhaps, however, this is one more instance of the exercise of an "undue amount of zeal" by a public analyst. To assist your readers in deciding the point, will Mr. Allen kindly inform us where the line of demarcation is to be drawn between errors of judgment and the exercise of an "undue amount of zeal" from the public analyst's point of view, as he objects to more than one of the errors pointed out in my former letter being placed on the shoulders of those gentlemen, but thinks that "in some cases an undue amount of zeal may be admitted." Is it a less painful experience for an honest tradesman to be dragged into a police-court to answer a charge of vending adulterated drugs based upon the one than upon the other? I am, Sir, yours faithfully,  
Birmingham, Feb. 12. W. F. HAYDON.

SIR,—In the long letter of Mr. Allen which you publish under this heading, the writer objects to the conclusion which Mr. Haydon, the secretary of the Chemists and Druggists' Trade Association, drew respecting "errors on the part of public analysts." In my opinion the term was a proper one and is justified by the facts, and I think your readers will agree with me in thinking so.

Another consideration is, however, of much more moment than a discussion whether public analysts have or have not made *mistakes* in the cases alluded to in the postscript to Mr. Haydon's letter (printed on pp. 178-9 of your issue of February 5). It is this:—

In each case quoted, without exception, we have an instance given in which a chemist has been brought before a criminal court, charged with a fraud which, if sustained, would have affected his character as a trader; and which, owing to the peculiar nature of his business, would have produced most prejudicial, if not ruinous, results. He would have been branded as the seller of *adulterated* commodities; for in the public view the Act under which he was prosecuted is an "Adulteration Act," and the public draw no fine distinction between an *adulteration* and the fact that the food or drug supplied "is not of the nature, substance, and quality of the article demanded."

So far I have said only what must be beyond dispute. Now I draw closer to Mr. Allen, but still simply state the fact when I assert that in each of these cases the charge against the chemist was based on the certificate of a public analyst; furthermore, in each of these cases the public analyst supported the charge by his presence in court, and by the verbal evidence which he gave on oath. In most of these instances he did more, and I find no fault with him on this account. He actively assisted the prosecution by giving information and instructions, both in and out of court, to the advocate who appeared in support of the summons. But for the assistance which the Chemists and Druggists' Trade Association afforded, and the evidence which I was thus enabled to bring before the court, convictions would undoubtedly have followed, and the chemists against whom the charges were made would have been convicted and fined; and what is of still greater consequence, they would have been regarded by the public as *the sellers of adulterated goods*. Injustice would have followed, as I believe, from the certificate of the public analyst in each case.

"These cases," Mr. Haydon says, "show that errors have been made by public analysts," and I concur with him in thinking so.

If the public analyst made a mistake, if it was through mistake that his certificate was inaccurate or his analysis incomplete or faulty, or if it was through mistake that his opinion or theory was erroneous whilst held *bonâ fide*, his subsequent action was quite defensible, and I would fain



hope in all these prosecutions this was the fact. If not, I leave your readers to judge whether the action of the public analyst would not have been most reprehensible and dishonourable; for if he made no mistake, the conclusion is inevitable that a public servant—I am *not* speaking of any public analyst, I am simply (for the sake of argument) adopting premises which Mr. Allen has suggested—I say, assuming that the public analyst made no mistake, he, a public servant, allowed a most serious charge to be brought against an innocent chemist, whilst he believed all the time that such a charge should not have been made. Further, whilst he had the power to prevent it by insisting on the withdrawal of the summons, he still allowed the proceeding to go on, and even in court gave evidence in support of the prosecution. I do not believe such a serious charge should be made against any public analyst; but if we must adopt the theory that he did not make any mistake, I see no way of escaping this other conclusion.

Mr. Allen pointedly refers to the case in which a chemist was charged with selling adulterated cayenne pepper, and to his action in that case. It is true, at the last minute, in answer to a question which I put to him, in cross-examination he admitted that he should not have recommended a prosecution. My question was asked at the suggestion, not of Mr. Allen himself, but made to me whilst I was on my feet by Professor Attfield. I well recollect that I doubted for a moment whether it would be wise to put it, for up to that point Mr. Allen had not shown to me any sign whatever that such was his opinion. However, he did make the admission, and I have ever since respected him for it. But this was rather late in the day; the mischief might have been done, for I doubt not on the analyst's certificate alone the chemist would have been convicted if he had not been defended.

In the other case—that of soda water—there was no indication that Mr. Allen did not desire a conviction. Respecting this, it is important to note that he does not in his letter say that he either recommended or wished that no prosecution should be instituted.

There is one other case to which Mr. Allen draws special attention, namely, one in which the sale of sweet spirit of nitre was successfully defended, “a victory,” he says, “of which surely neither the vendor nor anyone connected with the defence has any reason to be proud.” Well, sir, I for one am proud of that victory! You and your readers must bear in mind that it was *charged* against the chemist that he had sold as sweet spirit of nitre a preparation which was “not of the nature, substance, and quality of the article demanded,” but it was proved at the hearing that he had supplied the drug for which he was asked. The magistrates believed the evidence called for the defence, which maintained that the specific gravity of the article sold was ‘850. Clearly on this occasion the magistrates were of opinion that the public analyst had made a mistake. The contention on the part of the prosecution, however, took a wider field. They strove to support a false theory that the sale of a drug not mentioned in the British Pharmacopœia was illegal. It was against this proposition that the decision of the Bench was directed, a decision by which the sale of sweet spirit of nitre prepared according to the directions of the London Pharmacopœia was upheld. I may add the magistrates marked their sense of the importance of the issue raised by awarding so substantial a sum as 10*l.* towards the costs of the defence.

“Over-zealous” inspectors and “over-zealous” public analysts are, no doubt, dangerous to the trade; and so are public analysts who make mistakes; and so, too, are the certificates of public analysts who act with perfect good faith, which *enable* the over-zealous inspectors to prosecute chemists for offences which they have not committed. Mr. Allen says the public analyst cannot help it (here I think he is in error); but even assuming that he is correct, then I say for the chemist the danger is as great or greater than would otherwise be the case. Yours truly,

26 Waterloo Street, Birmingham. HENRY GLAISYER.  
February 14.

#### Masters and Assistants.

SIR,—I think the idea of a “black list” is both impracticable and objectionable. An assistant who, from any

cause, fancied he had a grudge against his employer, might do him (though really a very good master) a great injury by having his name posted on the list. I also look upon the suggested “Order of Honourable Service” as impracticable, though very good in theory. A far more practical plan, it seems to me, would be always to request a reference from the last assistant, asking him how long he was there, and why he was leaving, &c. An employer could not possibly object to this plan.

I do not agree with “Smiris” that total abstainers are becoming rare among chemists’ assistants. On the contrary, I am happy to think that they are growing in number. The preference of total abstainers for assistants is a recognition by employers that an abstainer is more likely to have a clear head. Many people, although not abstainers themselves, know the value of total abstinence in others.

196 Belsize Road, Kilburn, N.W., I am, yours truly,  
February 14. A. P.

SIR,—Allow me to suggest that no earthly good can result from these incriminations and recriminations between employer and employed. There are good masters and bad ones, and good and bad assistants; and I have such a good opinion of my fellow-men, that I think the bad ones are in a minority. But I also think an unjust servant will never make a just master.

It pleased me to see the sensible letter of Mr. Grosse, and hope the good advice tendered will be weighed carefully by “Cupidus Rerum Novarum,” and all other assistants. It will do no one harm, and though some few may ridicule, they must feel that its words are those of wisdom. I trust the assistants will not forget that in the ordinary course of things they too will be masters ere long. They will then find that the employer’s lot is not an enviable one, that there are other than pecuniary reasons why some men wish they could do all the work themselves.

I do not agree with the suggested “black list,” either for employers or employed; it is bad in principle, and quite impracticable. What I contend for is a greater respect for truth among masters when replying to inquiries on character: a firm and honest determination to be no party to placing a rogue or fool in a berth under false pretences.

Exception might be taken to a great deal that some of your correspondents have (perhaps whilst smarting under reproof) written, but I will rest with noticing one or two remarks.

“Origanum Cantharides” says, “The making of a good or bad situation is entirely in the hands of the master.” Many a man who has had, I daresay, quite as much experience as he, knows that this is not altogether the case, but very often contrariwise. I could instance a case where the master had been spoken of in a most libellous manner, and the situation described as “a blazing-hot shop,” though a subsequent assistant held the place for two years without a single unpleasantness, and when he left “to better himself” recommended a personal friend. No doubt some of the preceding occupants did find it a “hot shop,” inasmuch as one or two were “kicked out.”

“Cottonopolis” has evidently written without consideration of his subject, his suggestion of a “lex non scripta” being very puerile. Does he suppose for one moment that a man who gets discharged from a situation for dishonesty, drunkenness, immorality, or indolence, or for nearly poisoning a client will confess it to him? Does he expect to get from such a one a true character of the man who has turned him out? If so, his knowledge of mankind generally must be very limited.

In conclusion, I should like to point out the difference between the position of a master and his assistant. The master’s property and business reputation are, to a great extent, in the hands of his assistant. If theft be unchecked, or if a serious error be made, the master may fall, “never to rise again,” and through no fault of his own. An assistant, at the worst, has only an uncertain temper or an uncomfortable home to contend with, and these he can leave. If his circumstances will not allow it, then my advice to him is to exercise a little of that common-sense which “Makes us rather bear those ills we have, than fly to others that we know not of.”

MANCESTRIAN.



In reply to "Magister," *Omnia* (18/52) sends a copy of the agreement referred to. The trouble and annoyance of being bothered with an assistant who is either incompetent or objectionable in other ways prompted him to make a written arrangement of this character. The signature and date require to be written *across* a sixpenny agreement stamp.

"I, A. B., hereby engage to enter the service of C. D., chemist and druggist, L\*pool, as junior assistant, and to fulfil the duties of the same at an indoor wage of 2*l.* 1*s.* 8*d.* per calendar month, the engagement, however, to be terminable by a week's [or fourteen days'] notice on either side, which notice may be given at any time.

"[Signed] A. B.  
"February 14, 1887."

SIR,—So my friend "Opus Est," after three weeks' deliberation, has summed up courage to enter the ranks again. His arguments are poor, but he is no doubt comforted by the knowledge that he has done his best to defend himself.

Perhaps a few facts and figures from me may help to convince him wholly that he is wrong, and that, even "with a few days longer," his assistant was not capable of drinking the half-gallon of rectified spirits.

According to British law whisky contains 17½ volumes of rectified spirit in every 100 volumes. Now, a half-gallon of rectified spirit, at that rate, would be equal to 450½ oz. of good whisky; but, as "Opus Est" says that his assistant might have taken a few days longer, I will overlook that time, and reckon that he was drinking at the rate of only 400 oz., or 2½ gallons, of whisky per two weeks.

"Opus Est's" shop hours would, at the very most, be from 8 A.M. to 11 P.M., with three intervals of one hour each. So it will be observed that his assistant drank a quantity of spirit equal to 28½ oz. of whisky within the short space of eleven hours every day (Sunday included) for two weeks. The spirit, it will be remembered "Opus Est" said, was only very slightly diluted with water, a circumstance which made it all the more harsh for the assistant's stomach.

"Opus Est" does not say that his assistant was incapable of doing his daily duty. I ask, can anyone for a moment entertain the idea that it was possible for a man to drink that quantity of spirit and yet remain sober?

If this assistant was a drinker before he came into "Opus Est's" service, in my opinion "Opus Est" must have been very short-sighted if he did not see from his features whether he was telling lies or not when he informed him that he was a total abstainer. On the other hand, if he only commenced to drink when he entered "Opus Est's" service, he certainly did it at an alarming rate. It is my opinion that he will be in the "Land o' the leal" by this time.

Some gentlemen object to the title "black list." I must confess I do not like it myself; but it can be easily altered, and a more appropriate one substituted, such as "The Assistants' Guide in Choosing a Situation," or "The Assistants' Reference Book."

Some are even yet afraid that masters will not get fair-play. I repeat again that a master's character will not be based on the words of one assistant alone, but on the words of two or three of his late assistants; for instance, if there were three individual assistants who wrote characters about one man, and two of these testimonials proclaimed him to be a man of good character, he would be mentioned in the list as a man of good character, or *vice versa*. In a case where there was only one testimonial received, it would be stated that the character given was "doubtful."

Should such an association be formed, "Fair-play" shall be our motto. We will descend to no meanness: we will simply endeavour to help and to defend ourselves. I see nothing mean in that. If the masters have been ungentlemanly towards us, we shall not stoop to revenge.

One gentleman, I think, said that masters would have nothing to do with an assistant whose name was in the list. My answer is that there is no reason why any assistant's name need be on the list; only the master's name, accompanied by the character decided upon by the majority, as explained above, shall be on the list.

I remain, yours respectfully,  
CUPIDUS RERUM NOVARUM.

SIR,—It is with much heartfelt sympathy for the outraged feelings of "Magister" & Co. that he of "the odious nom de plume" again ventures into the fray. It is also with many qualms of conscience and many foreboding fears, that he states that he has not the slightest intention of withdrawing "the sweeping and slanderous assertion," or of giving "the apology due." When you can prove, O "Magister," that my assertions were, in the least particular, either "slanderous" or "untruthful," then—and not till then—will I withdraw them and apologise. My assertions receive all the substantiation they require from my own private experience and the experience of my fellow-assistants throughout the length and breadth of the land.

I have no doubt the assistants from whom you received applications felt as relieved as you must have felt when they were "declined," and they would probably have exclaimed in the same manner, "What a merciful deliverance," &c.

After relating your interesting episode you ramble off into an exhortation to assistants to learn their business, "and the majority of masters will be only too glad to have them." Now, my dear sir, you probably, in the "exuberance of your own verbosity," forgot that the question on hand is not "Will the master have the assistant?" on the contrary, it amounts to, "Will the assistant have the master?"

On reading over the other letters I am astonished at the idea, which seems prevalent, that in the proposed "black list" a good master is liable to be slandered. It has been laid down as plainly as anything can be that such an association would not give its verdict upon the opinion of one assistant only. The opinions of two or three assistants who had served under the same employer would be obtained, and the verdict formed from the majority.

"Opus Est," I observe, has taken heart again and treated us to a few flippant remarks, but, even with the addition of "a few days longer" his S. V. R. assertion is rather too "tall" for my taste.

I am glad to see that we are likely to receive a good deal of support from some of our more independent fellow-assistants, and I would urge upon "Vox," "Junior," "Argent," and the rest to send their names and addresses (as I send mine) to "Cupidus Rerum Novarum" so that we may get our scheme into a tangible shape.

I am, yours truly,  
ORIGANUM CANTHARIDES.

#### Oil of Spike.

SIR,—The idea, more or less distinctly formulated by several of your correspondents, that "Oil of Spike" is properly foreign as distinguished from English "Oil Lavand." is certainly erroneous, though held by so good an authority as Rennie, who says:—

"Oil of Spike.—This term is applied to foreign oil of lavender, which is cheaper than English, and also to oil of turpentine, but is commonly given to a mixture of 3 parts of oil of turpentine, and 1 part of oil of lavender; or aa. of oil of turpentine and Barbadoes tar," &c.

And again:—"The foreign oil of lavender, or *oil of spike*, is not so fine as the English, because the herb is distilled along with the flowers." No doubt the term was so used commercially, but no student of English literature can fail to know that "spike" was anciently the common name for the lavender plant, and a reference to any old herbal will show that both "spike water" and "oil of spike" were used where now we should say "lavender water" and "oil of lavender." In fact, the older name still lingers in many parts of the country, and is given as a common localism in Halliwell, in the English Dialect Society's Glossary of Plant-names, and in Barnes's "Dorset Glossary," not to mention others. A quotation from Culpepper will here suffice, as regards the oil:—"The chemical oil drawn from lavender, usually called 'oil of spike,' is of so fierce and piercing a quality, that it is cautiously to be used."

I am, &c.,  
Epworth, February 15. C. C. BELL.

20/52. *Peru*.—Coarse castor oil and colza oil are used by farmers for greasing wheels. Other oils of the paraffin class. "Proud Flesh" is an excessive granulation of new tissue, and the application of nitrate of silver is sufficient to remove it.



## DISPENSING NOTES.

[The opinion of practical readers is invited on subjects discussed under this heading.]

## Pill Queries.

SIR,—What is the best way to make presentable pills from the following prescription?

Ext. nuc. vom.	..	..	..	gr. ½
Camphor.	..	..	..	gr. ij.
Ac. carbolic.	..	..	..	gr. i.
Glyc. tragac.	..	..	..	q.s.

M. Ft. pil. Mitte viij.

After several ineffectual attempts, we succeeded in making some very large pills with the addition of cera alb. and magnes. levis.

Yours truly,

A. P. (51/68.)

## Hair Lotion.

SIR,—Is it possible to make the following hair-dressing a presentable compound?

Liq. ammon.	..	..	..	3j.
Ol. olivæ	..	..	..	3j.
Paraffin. melle	..	..	..	3j.
Acet. canth.	..	..	..	5ss.
Eau de Cologne	..	..	..	3j.

Misce.

CAUTIONS. (52/51.)

## Silvering Pills.

SIR,—However well it may have suited Mr. Whitfield to silver all the pills he dispenses, whether so ordered or not, I cannot but think the practice is very wrong in principle.

If I took a prescription to any chemist to be dispensed, and his zeal for appearance so far outran his discretion in silvering my pills when not ordered to do so, I should feel annoyed, and consider the chemist a very fussy man. It was taking, so I think, an unwarrantable liberty with the prescription.

York.

E. B. KENDALL.

SIR,—In the country we rarely meet with a case of pill-silvering which is not ordered by the prescriber. Let us hope Mr. Whitfield and other gentlemen who take liberties with pills will make a mark to the effect on the prescription, so that other dispensers may not be thought less willing to do the correct thing. As to Silvering *v.* Coating (pearl or gelatine), I find coating much preferred by the public. I therefore supply pearl-coated pills on every possible occasion, but always, in prescriptions, ask permission first.

HEDER. (53/42.)

The Old *v.* the New B.P.

SIR,—In the case quoted by "Cinchona" last week, an explanation given to the patient ought to be quite sufficient. If this should fail—and, for my own part, I have never met with a failure—an effort must be made to obtain the old tincture. I think we are quite justified in concluding that the new is an improvement on the old; and I think we must not grumble at a small addition to our permanent stock, if we can thereby carry out our duty to the very letter.

HEDER. (53/42.)

## Cipher Prescriptions.

SIR,—I have met with many instances of the above, but have usually been able to refer them to hospital or parish formulae, or to some needy practitioner who is determined to restrict the dispensing of his medicines to a certain colleague. In a town near this place is a chemist who has mixtures, pills, powders, &c., labelled "A," "B," "C," and so on. This is perfectly legitimate, but annoying to a man who meets with an "erratic" which has travelled twenty-five miles. In the case of "Inquirer," my sad reply would have

been, "*Non possum.*" Some local brother within the twenty-five miles can doubtless explain the mystery.

HEDER. (53/42.)

35/192. **Cod-liver Oil Mixture.**—A. J. Paethorne asks:—"What would be the best way to proceed with the following in order to produce a homogeneous and inseparable preparation?"

Ol. morrhue  
Glycerin. pur.  
Succ. limonis expressi  
Ana partes æquales ut fiant 3xvj. Misc.

[A satisfactory emulsion is made by the addition of tincture of quillaya—15 minims to each ounce of oil.]

12/50. *Apprentice* has made **Ung. Hydrarg. Oxid. Rub.** (B.P. 1885), and cannot get it smooth. He would like to have the experience of others on the subject. This is a periodically recurring difficulty. Would a dozen or so of our readers send their opinions briefly expressed on post-cards?

## LEGAL QUERIES.

51/53. **The Title "Pharmacy."**—C. B. G. asks if the Pharmaceutical Society claim a monopoly for pharmaceutical chemists in the term "Pharmacy" for their shops, how can be explained the notice in their Calendar in reference to the Jacob Bell Scholarship—"or been engaged not less than three years in the pharmacy of a registered pharmaceutical chemist or chemist and druggist"? [This seems to show that if the claim was ever entertained it has been abandoned.]

51/61. *T. A.*—We think all the preparations are strictly liable to medicine-stamp duty. The charge, however, might not be insisted on in the case of the "Glycerosilene Extract and Cream." To be sure, you had better send duplicate labels in each case to the Commissioners of Inland Revenue, Somerset House.

**The Hop Bitters Cases.**—Mr. W. Banbury and "A Provincial Chemist" are thanked for their letters, but as the contest in regard to the company's and other people's rights is now in a fair way to be fought out, we do not think it desirable to carry on a rival discussion in these columns.

9/51. *M. J. T.*—As certain "Hop Bitters" cases are now being actually contested in the Courts, we shall all know soon more exactly than we can otherwise guess the limits of the Hop Bitters Company's rights. By carefully reading the reports which we have already published you will be able to ascertain pretty accurately what the company claim.

Mr. Hudspeth, of Langley Moor, who was fined 10*l.* at the Durham County Court, on the 17th ultimo, on the prosecution of the Pharmaceutical Society, for selling laudanum and for describing himself as a "botanic druggist," complains that our report of his case does not fairly represent him. We have compared our report with a longer one cut from a local paper, which Mr. Hudspeth sends, but do not find any essential difference. Mr. Hudspeth says that it was Mr. Lambert, the chemist, who tempted him to sell laudanum, and he seems to think it hard that he (Mr. Hudspeth) should have had to pay penalties while his tempter got off with a caution. Mr. Lambert stated in court that the defendant was an ordinary customer of his, and on one occasion had asked his permission to use his (Lambert's) name in selling laudanum. Who first suggested the irregularity may be in dispute, but it seems clear that both Hudspeth and Lambert had sought to evade the Pharmacy Act, but were unsuccessful. Mr. Hudspeth concludes his letter (which he asks us to publish) as follows:—"Gentlemen and readers, my fine is very heavy, and, led on to the ice, sliding to ruin, through the action of a member of the Pharmaceutical Society, will you say what honest people have to do when chemists call and ask them to do wrong?" We should think the answer is obvious.



53/64. *Pharmakon*.—If you are not a pharmaceutical chemist you are clearly liable to a 5*l.* penalty for using the title "pharmacist," as that title is expressly protected in the Pharmacy Act, 1852, section 12.

### MISCELLANEOUS INQUIRIES.

15/158. *Dum Spiro Spero*.—The U.S. trade-marks office is at Washington.

38/51. *Xylem* has made *Lin. Potass. Iodid. c. Sapone*, and gets a nice smooth white jelly, much more like an ointment than a liniment, and asks, "Is this what it ought to be?" Yes; the curd soap is the cause of the gelatinous consistence.

35/169. *W. R. S.*—Formulae for **Cod-liver Oil Emulsion** with **Hypophosphites** appeared in our last volume, pages 158 (July 31) and 563 (October 23).

**Anti-catarthal Smelling-salts**.—Make a mixture of carbonate of ammonia (13 parts) and camphor (3 parts), both in small pieces or coarse powder, and saturate with a solution composed of carbolic acid (1 part), iodine liniment (1 part), strong solution of ammonia (3 parts), rectified spirit (3 parts). Flavour with eucalyptus oil, and colour with charcoal, if desired.

The menthol cone has the appearance of a mixture of spermaceti (or wax) and menthol; but, on examination, we do not find either of these fats present. It appears to be made from moist menthol—that is, menthol which is not quite free from the oil, and which some makers claim to be better than the chemically pure steareptene.

29/169. *R.* writes, regarding **Tooth Cement**:—"I have tried the following, but find that it crumbles when rolled between the fingers. In solution of zinc chloride (50° to 60° Baume) dissolve 3 per cent. of borax or sal ammoniac, and add oxide of zinc, which has been heated to redness." [This is a good cement, but the oxide must not be added to the solution. Place the oxide on a pill tile, and make it into a thin paste with the solution, and pack it into the carious teeth while in that condition.]

17/51. *Reading*.—The **Devonshire Oils** are intended for internal use. For external use, you should make white oils, for which you will find a formula in our issue of January 29, page 155. See also reply to "Linimentum," on page 214 (February 12).

48/74. *Dombey & Son*.—We gave a formula for **Marking-ink** (silver) in our issue for September 25, 1886 (page 441). The ink prepared from that recipe is the most satisfactory we know of, but it requires to be heated. Those which are not heated are made from aniline. No satisfactory formula for that kind has been published.

50/74. *R. H.*—See reply to "A. P. S." (January 15), regarding **Hand-Grenade Solution**.

15/50. *Dos*.—A glazed earthenware condenser is quite suitable for distilling spirituous preparations, and asbestos cloth will serve excellently for luting.

16/51. *A. W. T.* (Tokyo).—**Gesso** is used in fresco painting, and is plaster of paris. Cooley states that it is incorporated, while still moist, along with the colours, but ready-made canvases appear to have had a coat of gesso. How this is done it is difficult to say; probably the gesso is mixed with size, and then painted on the stretched canvas. A white earth called "Yeso" is used in Spain for sprinkling on grapes before they are pressed. This seems to be a similar substance.

38/62. *Curd Soap & Co.*—The cream which you send appears to be made from curd soap, spirit, and water. It is perfumed with citronella—probably a constituent of the soap, some makes of which, so perfumed, are sold in 1-lb. bars. See note on "Pharmaceutical Soaps" in this issue for explanation of gelatinous appearance.

40/50. *W. A. Wood*.—You will find a paper on **Medicated Cottons** in our issue for May 1, 1886. Carbolised cotton should contain 6 per cent. of carbolic acid.

52/54. *J. Burt*.—The irritation of the skin caused by the juices of various species of *rhus* is alleviated by the application of alkaline lotions, such as liq. plumbi subacet. dil. The following is an excellent lotion:—

Sodæ bicarbonatis	..	..	..	..	3ij.
Boracis	..	..	..	..	3ij.
Glycerini	..	..	..	..	3ss.
Aquæ rosæ ad	..	..	..	..	3viij.

M.

To be applied every hour or two.

A saline laxative should also be given.

44/17. **Cresolene** is a fluid prepared by G. S. Page, 67 Wall Street, New York, and introduced several years ago as a specific for whooping-cough. Messrs. Allen & Hanburys, Plough Court, E.C., are the agents in this country. The pamphlets regarding the remedy say of it:—"Cresolene is a definite product of coal tar, allied to but distinct from carbolic acid. It is stated to be far more destructive of fungoid and other very low forms of life than carbolic acid, and to be the most powerful antiseptic at present known."  $C_6H_5CH_3O$  is given as its formula. The remedy is vaporised by means of specially-made vaporisers, which may be got from the agents.

42/52. *Retlaw*.—The **Straw Hat Spirit Polishes** are solutions of resin and shellac in methylated spirit. Some manufacturers add gum thus and sandarac. The polishes are made of the required colour by the addition of aniline dyes. In the case of white, or rather colourless, polishes, white shellac and pale resin are used. They are made to rather less than the density of simple syrup.

(2.) Most of the Pharmacopœias are in the Pharmaceutical Society's library.

63/57. *Sarniensis*.—**Worm Cures**.—The following are liquid forms, such as you require:—

(1.) Santonine in fine powder, 48 grains; mucilage of tragacanth,  $\frac{1}{2}$  fl. oz.; syrup of orange, 1 fl. oz.; dill water to 6 fl. oz. Doses: For children, 1 to 3 teaspoonfuls; for adults, 1 to 2 tablespoonfuls, for two or three nights, followed by a purgative.

(2.) Sulphate of iron, 20 grains; infusion of quassia, 8 fl. oz. Dose: Two tablespoonfuls every morning, fasting.

(3.) 3ij. doses of turpentine made into an emulsion with yolk of egg and an aromatic water.

35/172. *A. J. Palethorpe*.—The **Chilian Pharmacopœia** is published by F. A. Brockhaus, Leipsig. You may get it through Triebner, of Ludgate Hill, London.

17/53. *W. U. G.*—You will find particulars regarding the silvering of mirrors in our issue of December 18, page 823, in reply to "Emulsion." An amalgam, composed of lead, tin, and bismuth, of each 1 part, and mercury 10 parts, is also used, being spread over the warmed surface with a hare's foot.

2/53. *P. H.*—**Vermin-killer**.—A mixture of strychnine 1 part, and arsenic 5 parts, or any other proportions of the same, coloured with charcoal or prussian blue, is the most effectual exterminator. A little carbonate of barium may be added to make bulk.



43/53. *Stielac*.—Lacquer.—A solution of seedlac, 1 part, in methylated spirit from 5 to 8 parts, is generally used for brass. The following formula gives a pale lacquer suitable for tin:—Mastic, 2 oz.; sandarach, 8 oz.; elemi, 1 oz.; Strasburg turpentine, 4 oz.; methylated spirit to make 40 oz. In the winter months the metal should be warmed; heat makes the lacquer adhere better, as well as harder.

52/65. *A. W. G.* (Glasgow).—Butter Colouring, which will not colour the milk, is made on the following plan:—First obtain the colouring resin of annatto. This is done, as suggested by Mr. Lawson, by macerating annatto in methylated spirit for several days, then bring to the boil and filter. Macerate in a second portion of spirit, if necessary, to extract residual colouring matter. Then evaporate the spirituous solution, dissolve the residue in solution of sodium carbonate, strain, and add dilute sulphuric acid to precipitate the resin. This is afterwards to be well washed and dried, finally dissolving it in a sufficient quantity of cotton-seed oil to make the required strength.

4/53. *H. Dary*.—The change may be due to the presence of iron in the gum, which gives a violet colouration with salicylic acid, and a lighter colour with traces of iron.

30/53. *C. E. L.*—You will find full information regarding Hydrometers in the "Art of Pharmacy" (DIARY, page 132, reprint page 6). Twaddell's scale is easiest calculated. You will find a formula for cream of almonds on page 114 of our issue of January 22.

*W. A. L.* (53/37) and *W. S.* (36/50).—Essence of Coffee is merely a liquid extract of coffee to which a considerable proportion of caramel and syrup are added for preservation. What is generally sold is coffee and chicory, and according to Cooley the proportions are coffee 4 parts, chicory 2 parts, burnt sugar 1 part. Mix the coffee and chicory in coarse powder, and percolate with boiling water. Evaporate the percolate, preferably in a vacuum-pan, until each pint represents half a pound of coffee, and add the caramel.

24/43. *Foreigner*.—You had much better get the diploma here before going to Australia. The certificate of the English Minor examination is accepted in any of the Australasian colonies. Without it you must pass a somewhat similar examination there before you can commence business as a chemist and druggist. In Victoria and New Zealand dentistry is on the same legal footing as here. We are not sure about the other colonies.

46/65. *Pickles* wants to know how to whiten onions for pickles. Even the small silver-skin variety have slight green lines which are artificially removed.

36/46. *J. Goodman*.—For a six-candle power (only) electric light you would have to use battery power. We think you would find the bichromate battery the most convenient, and all things considered, the most economical. You can get the lamps for about 5s. each, and you would require a six or seven cell battery to work it. This would probably cost you 30s. or 40s. The danger of breaking the lamps is very considerable, and the frequent charging of the batteries is troublesome. You will find some practical details about electric light from batteries in an article published in this journal July 15, 1884.

2/49. *C. E. L.*—Mithridate.—The following recipe for mithridate is used in Nottingham and elsewhere:—Pulv. bacc. lauri, ʒij.; pulv. pip. long, ʒij.; pulv. sem. carui, ʒss.; pulv. sem. anisi, ʒss.; pulv. rad. gentian., ʒij.; pulv. rad. curcumæ, ʒij.; pulv. rad. valerian., ʒij.; pulv. gum. acaciæ, ʒij.; pulv. rad. zingib., ʒij.; bole ad color. Misc.

The *confectio damocratis*, or mithridate, of the London Pharmacopœia, 1746, was made from the following formula:—Cinnamon, ʒxiv.; myrrh, ʒxj.; agaric, spikenard (*Nardus indica*), ginger, saffron, seeds of treacle mustard (*Thlaspi*

*arvense*), or mithridate mustard (*Lepidium campestre*), frankincense, and Chio turpentine, of each ʒx.; camel's hay (*Juncus odoratus*), costus (*Costus arabicus*), or in its stead zedoary, Indian leaf (*Malabathrum folium*), or in its stead mace, French lavender, long pepper, seeds of partworth, juice of the rape of cistus, strained storax, opoponax, strained galbanum, balsam of Gilead, or in its stead expressed oil of nutmegs, Russian castor, of each ʒj.; Poley mountain water, germander, fruits of balsam tree, or in its stead cubebs, white pepper, seeds of the carrot of Crete (*Daucus creticus*), strained bdellium, of each ʒvij.; Celtic nard, gentian root, leaves of dittany of Crete (*Amaracus dictamnus*), red roses, seeds of Macedonain parsley, seeds of lesser cardamoms, seeds of sweet fennel, gum arabic, strained opium, of each ʒv. Root of sweet flag, root of wild Valerian, aniseed, strained sagapenum, of each ʒiiij.; spignel, St. John's root, juice of acacia, or in its stead catechu, the bellies of scinks, of each ʒiiss. Clarified honey three times the weight of all the rest. Dissolve the opium first in a little wine, and then mix it with the honey made hot. In the meantime melt together in another vessel the galbanum, storax, turpentine, and other ingredients of this kind, continually stirring them that they may not burn, and when these are melted add the honey by degrees; but, when the mixture is nearly cold, add the rest of the species reduced to powder.

5/50. *The Syphon Trade*.—*Nux Vom.* would be obliged if some brother chemists would give their methods of dealing with syphons. He says:—"I do a fair syphon trade, but have great difficulty in getting customers to pay 2s. for each syphon, and if the syphons are lent there is greater difficulty in getting them back."

27/50. *What is it?*—*Apprentice* writes:—"I remember reading some time since that if a hen be stroked a few times on a small nerve just behind the eye it will turn on its back and appear dead for a short time, after which it will recover and appear as though nothing had happened. Possibly this is the explanation of the question, and the root mentioned in a previous letter was only used as a blind."

31/169. *Rhubarb*.—(1.) The formula with "Assar bark, codru bark, rolisque root," &c., is the old game which we have often exposed. We do not know what "E.B.P." may mean. The man's French is as bad as his English, which is saying a good deal. We suppose he means that he holds the testimonial of a surgeon, but he aims to convey the idea that he is a surgeon. The truest line in his circular is probably that saying, "A gentleman residing in Lincoln cured himself in six weeks at a cost of 5s. and a complicated ailment." (2.) For Hair Restorer, see page 181 of THE CHEMIST AND DRUGGIST, February 5.

#### The Shop Hours Bill.

7/151. *J. T. W.* is decidedly opposed to the Bill for compulsory closing of shops as far as chemists are concerned. He considers the recreation of assistants one question, the compulsory closing another question. The former may, perhaps, as to the number of hours employed be regulated by law—that is, for those under a certain age. But an experience of forty-six years leads *J. T. W.* to the conclusion that the closing of a chemist's shop cannot be made compulsory.

9/51. *M. J. T.*, who is in favour of the Bill, writes:—"In this town (Sunderland) where the doctors practically do their own dispensing, we could close at 7 P.M., with an occasional half-holiday."

#### The Poison Shelf.

SIR,—Concerning the "American Poison Cabinet" mentioned in your report of the Pharmaceutical Society's Evening Meeting, I desire to indicate that the arrangement differs in no material particular from one patented by Mr. J. C. Young, of Warrington, about fifteen years since, except in the introduction of electricity, the utility of which is by no means apparent.

Yours faithfully,

J. RYMER YOUNG.



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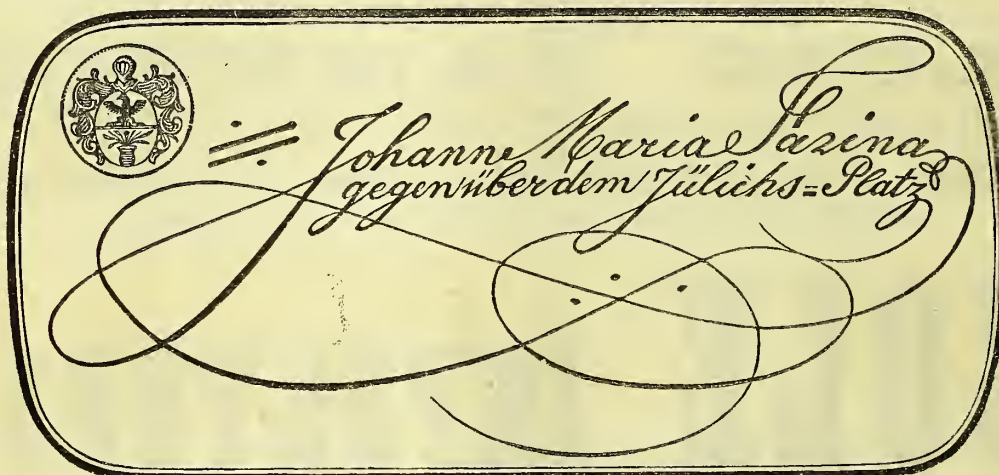
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In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

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Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

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" 3. Double ditto	...	...	...	...	...	6 "	
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "	
" 5. ditto (medium)	...	...	...	...	...	4 "	
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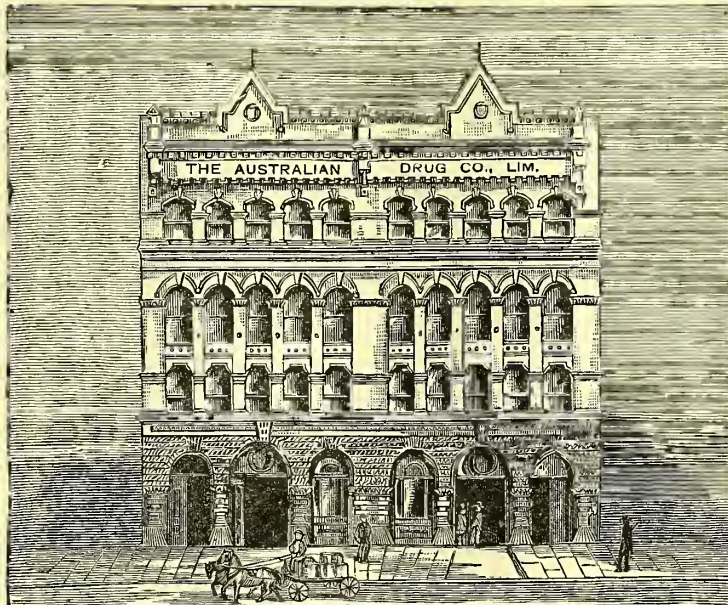
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They are not made from the crude material, but by dissolving the active principles in Alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power.

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And the Principal Wholesale Houses in the Trade throughout Great Britain and Ireland, at the same terms.

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	DOZ. BOTTLES	
	containing 25 PILLS	containing 100 PILLS
Aconitine Crystals (Duquesnel's) .....	1-500 gr.	7 0
" Barb. B.P. ....	1-200 gr.	7 0
" Dilute (Hall's Dinner) .....	5 gr.	5 0
" Socotrine, B.P. ....	5 gr.	5 0
" and Asafœtida, B.P. ....	5 gr.	5 0
" and Iron, B.P. ....	5 gr.	5 0
" and Myrrh, B.P. ....	3 gr.	5 6
" Nux Vomica .....	5 gr.	6 0
Aloin .....	1-10 gr.	6 0
" .....	1-4 gr.	6 0
" .....	1-2 gr.	7 0
" .....	1 gr.	11 0
" Compound .....	7 0	24 0
" and Strychnine .....	7 0	24 0
" Strychnine and Belladonna .....	7 0	24 0
Anti-Cholera .....	2 gr.	7 0
Anti-Dyspepsia (Fothergill's) .....	7 0	24 0
Aphrodisiac .....	16 0	59 6
Arsenious Acid .....	1-50 gr.	5 0
" .....	1-20 gr.	5 0
Asafœtida, U.S. ....	5 0	16 0
" Compound, B.P. ....	5 0	16 0
Atropine .....	1-300 gr.	7 0
" .....	1-100 gr.	7 0
Blue Mass, B.P. ....	1 gr.	5 0
" .....	2 gr.	5 0
" .....	3 gr.	5 0
" .....	5 gr.	5 6
" Colocynth and Hyoscy. ....	9 0	32 0
Calcium Sulphide .....	1-10 gr.	6 0
" .....	1-4 gr.	6 0
" .....	1-2 gr.	6 0
" .....	1 gr.	6 0
Calomel, Colocynth, and Hyoscyamus .....	9 0	32 0
" Comp. B.P. ....	5 gr.	5 6
" and Opium .....	7 6	26 0
Camphor and Hyoscyamus .....	5 6	18 0
" Mono-Bromated .....	2 gr.	11 0
Cannabis Indica Extract .....	1-4 gr.	7 0
" .....	1-2 gr.	9 0
" .....	3 gr.	7 0
Cascara Sagrada Extract .....	3 gr.	7 0
Cathartic Compound U.S.P. ....	5 6	18 0
Codeine .....	1-2 gr.	20 6
Colocynth Comp. B.P. ....	4 gr.	8 0
" .....	5 gr.	9 0
" .....	5 gr.	9 0
" .....	5 gr.	9 0
" .....	5 gr.	9 0
" .....	5 gr.	9 0
" Extract, B.P. ....	5 gr.	9 0
Conium Compound, B.P. ....	5 gr.	5 0
Copaiba Compound .....	5 6	18 0
" and Oleo-Resin Cubeb .....	5 gr.	11 0
Corrosive Sublimate .....	1-30 gr.	5 0
" .....	1-20 gr.	5 0
" .....	1-10 gr.	5 0
Croton Chloral .....	1 gr.	10 0
" .....	2 gr.	17 0
Cubeb, Oleo-Resin, with Soda .....	7 0	24 0
Digitalin .....	1-60 gr.	7 0
Elaterine .....	1-20 gr.	13 0
Emmenagogue (Mutter's) .....	5 6	18 0
Ergotin .....	3 gr.	16 6
Euonymin .....	2 gr.	16 0
" .....	3 gr.	20 6
" Compound .....	16 0	59 0
Ferruginous (Blaud's) .....	3 gr.	6 0
" .....	5 gr.	7 0

## PILLS.

	DOZ. BOTTLES	
	containing 25 PILLS	containing 100 PILLS
Hydrastine (White Alkaloid) .....	1-2 gr.	20 6
Iodoform .....	1 gr.	9 0
" and Iron .....	11 0	39 6
Ipecac. Powdered .....	1-4 gr.	5 0
" .....	5 gr.	5 0
" Comp. (Ipecac and Opium) .....	5 gr.	9 0
" and Squill, B.P. ....	5 gr.	5 0
Iron, Arseniate .....	1-8 gr.	5 8
" Carbonate, B.P. ....	5 gr.	5 8
" by Hydrogen (Quevenne's) .....	1 gr.	5 0
" Iodide (Blancard's Formula) .....	1 gr.	7 0
" and Quinine Citrate .....	2 gr.	10 0
" Quinine and Strychnine .....	13 6	49 6
Laxative Vegetable (Improved Cath.) .....	5 6	18 0
Manganese, Bin-oxide .....	2 gr.	9 0
Mercury, Bin-Iodide .....	1-16 gr.	5 0
" Proto-Iodide .....	1-8 gr.	5 0
" .....	1-4 gr.	5 0
Morphine, Muriate .....	1-8 gr.	7 0
" .....	1-4 gr.	9 0
Narcotic Extracts (Brown-Sequard) .....	15 0	55 6
Nitro-Glycerin .....	1-100 gr.	7 0
" .....	1-50 gr.	7 0
Opium, Powdered .....	1 gr.	7 0
" and Acetate of Lead, B.P. ....	5 gr.	7 0
" and Camphor .....	7 0	24 0
Pepsin, Pure Concentrated .....	1 gr.	9 0
Phosphorus .....	1-100 gr.	6 0
" .....	1-50 gr.	6 0
" .....	1-30 gr.	8 0
" and Iron .....	8 0	23 0
" Iron and Quinine .....	17 0	63 6
" and Nux Vomica .....	7 0	24 0
" Nux Vomica and Iron .....	8 0	28 0
" and Quinine .....	17 0	63 8
" Quinine, Iron, and Strychnine .....	17 0	63 6
" and Valer. Zinc .....	11 0	39 6
Picrotoxin .....	1-80 gr.	7 0
Podophyllin .....	1-8 gr.	5 0
" .....	1-4 gr.	5 0
" .....	1-2 gr.	5 6
" Comp. ....	8 0	28 0
Quinine, Bi-Sulphate .....	1-4 gr.	5 0
" .....	1-2 gr.	5 0
" .....	1 gr.	5 0
" .....	2 gr.	7 6
" .....	3 gr.	10 6
" .....	4 gr.	13 0
" .....	5 gr.	16 0
" Sulphate .....	1-4 gr.	5 0
" .....	1-2 gr.	5 0
" .....	1 gr.	5 6
" .....	2 gr.	8 0
" .....	3 gr.	11 0
" .....	4 gr.	14 0
" .....	5 gr.	17 0
" Comp. (Anti-malarial) .....	15 0	55 6
Rhubarb Comp. B.P. ....	5 gr.	7 0
" and Blue Mass .....	5 gr.	7 0
Rhubarb, Ipecac. and Soda .....	7 0	24 0
Salicylic Acid .....	2 gr.	7 0
" .....	5 gr.	11 0
" Comp. ....	16 8	63 0
Soap Comp. B.P. ....	5 gr.	8 0
Squill Comp. B.P. ....	5 gr.	5 8
Strychnine .....	5 0	16 0
Zinc. Phosphide .....	1-4 gr.	7 0
" .....	1-2 gr.	9 0
" Valerianate .....	1 gr.	8 6

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Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

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For preparing peptonised or partially digested milk, soups, &c. Bottles, 2/6, 4/6, and 8/6, with full directions.

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An exceedingly active fluid pepsin. Dose, one to two teaspoonfuls with meals. Bottles, 3/6, 5/6, and 10/6.

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 $\frac{1}{4}$  Pint, 1/; $\frac{1}{2}$  Pint, 2/;

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Cures Consumption and General Debility.  
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The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List of REDUCED PRICES on application.

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ALSO, ANÆSTHETIC ETHER, ALOIN, BEBEERIN, CHRYSOPHANIC ACID, SALICIN

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

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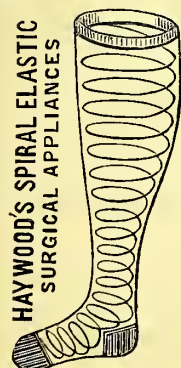
The superior quality of **NEWSOME'S ABSORBENT SURGEONS' LINT** is universally admitted.

The V.B. Quality is quite pure and of great superficial area and exquisite softness.

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**Newsome's Bleached Rolled Bandages, 3 in., 2½ in., 2 in. Also Surgical Absorbent Open Bandages:****Specially Bleached and Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings; also Sheet Waddings, Tow, &c.**

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MADE ON ENTIRELY NEW PRINCIPLES.

**ADVANTAGES:** No Binding. No Seams. Equal Pressure throughout. Heels and Toes. Porous. Can be Washed. Adapts to shape of any Leg.

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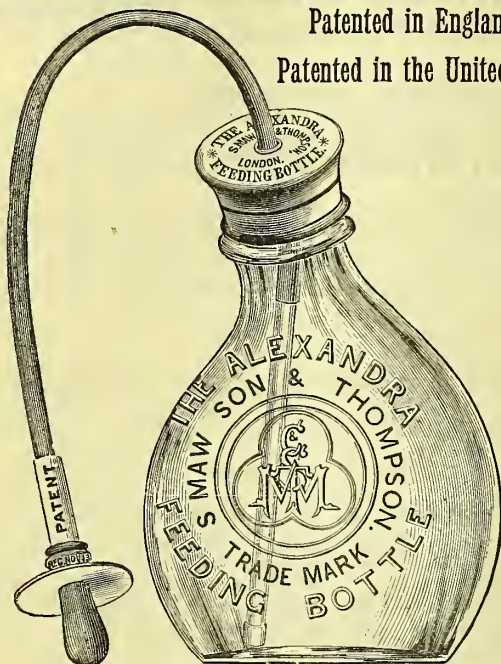
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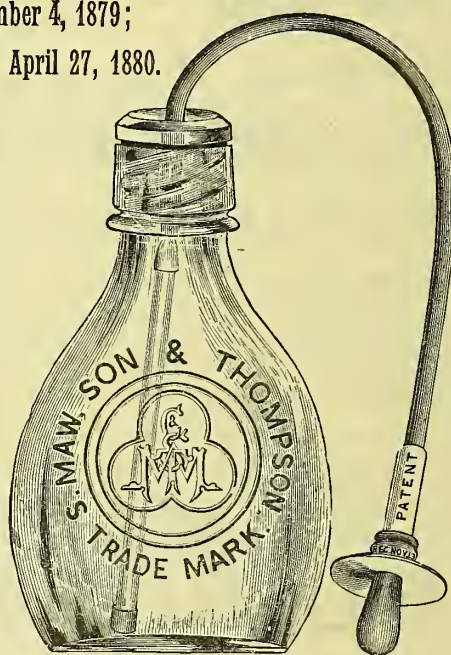
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Patented in England, December 4, 1879;

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THE ALEXANDRA.  
(Earthenware Cap.)



THE EXPORT.  
(Glass Screw Stopper.)

	White Fittings.			Black Fittings.		
Alexandra, China or Wood Top Corks ... per doz.	3/8	—	—	4/3	—	—
Alexandra, 2nd Quality, Wood Top Corks ..	3/-	—	—	3/6	—	—
Alexandra, Earthenware Caps.....	—	8/-	11/-	—	8/6	12/-
Alexandra, Earthenware Screw Stoppers ..	—	—	11/-	—	—	12/-
Alexandra, Glass Screw Stoppers .....	4/-	8/-	11/-	4/6	8/6	12/-
Export, China or Wood Top Corks .....	3/6	—	—	4/-	—	—
Export, 2nd Quality, Wood Top Corks ...	2/9	—	—	3/3	—	—
Export, Earthenware Caps .....	—	7/3	—	—	8/-	—
Export, Glass Screw Stoppers .....	4/-	7/6	—	4/6	8/-	—


FOR FURTHER PARTICULARS SEE QUARTERLY PRICE CURRENT, PAGES 46 AND 47.

**SPECIAL QUOTATIONS TO WHOLESALE BUYERS.**

**S. MAW, SON & THOMPSON, LONDON.**



Are manufactured of the same kind of ingredients as those sanctioned and ordered by Dr. Andrew Smith, Director-General of Her Majesty's Army and Navy Ordnance Medical Department, for the use of the Soldiers and Marines in Scutari Hospital.

	BREAST PLAISTERS.	No.	Size of Leather	Retail Prices.	Per doz.
				d.	s. d.
	Emp. Plumbi, for Ladies' Breasts .....	1	Diam. 6½ in.	4 size	2 8
	Emp. Plumbi, for Ladies' Breasts ..	2	" 7½ "	6	4 0
	ditto spread on Chamols ..	1	" 6½ "	.. ..	4 0
	ditto ditto ..	2	" 7½ "	.. ..	6 0

BREAST PLAISTERS.	No.	Size of Leather	No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
			s. d.	s. d.
Emp. Belladonna, for Ladies' Breasts	1	Diam. 6½ in.	5 4	4 0
ditto .....	2	" 7½ "	8 0	6 0
ditto spread on Chamols	1	" 6½ "	8 0	6 0
ditto ditto ....	2	" 7½ "	12 0	9 0

PLAISTERS, SPREAD.—Prices per Dozen Yards. 16 Inches in width.						
NAME	Glazed Cloth	Unglazed Cloth	Linen	Swans-down	Mole-skin	Skins of Leather
Emp. Adhæsivum Opt. ..	4/0	5/8	10/0	10/0	20/0	4/0
Adhæsivum .....	3/2	..	..	..	..	..
" Ammon. c. Hydrarg ..	16/0	..	..	80/0	36/0	5/6
" Antim. Pot. Tart. ....	10/0	..	..	24/0	30/0	4/0
" Belladonna .....	13/3	15/0	24/0	24/0	30/0	5/6
" Calefaciens .....	5/8	6/4	11/3	11/3	22/6	..
" Cerat Saponis .....	6/6	7/6	12/0	12/0	22/6	..
" Dreadnought .....	9/0	10/0	14/0	14/0	24/0	4/6
" Elemi .....	9/0	10/0	14/0	14/0	24/0	4/6
" Ferri .....	9/0	10/0	14/0	14/0	24/0	4/6
" Galbani .....	14/0	..	..	24/0	30/0	4/6
" Hydrarg. ....	14/0	15/0	18/0	18/0	27/0	4/6
" Iodine .....	16/0	..	..	30/0	36/0	5/6
" Opii .....	18/0	20/0	27/0	27/0	36/0	5/6
" Picis Co. ....	11/0	12/0	15/0	15/0	24/0	4/6
" Plumbi .....	5/6	6/8	12/0	12/0	21/0	4/0
" Potass. Iodid. ....	16/0	..	..	30/0	36/0	5/6
" Resinæ .....	5/6	6/6	12/0	12/0	21/0	4/0
" Roborans .....	5/0	5/8	10/0	10/0	20/0	..
" Saponis Alb. ....	5/6	6/6	12/0	12/0	21/0	4/0

**HOSPITAL PLAISTER**, on Black Cloth, 16 in. wide, doz. yds. 8/0

" " " " " " " 8/0

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Mineral Waters,  
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FEEDERS  
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Best Quality.

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**DISPENSING BOTTLES & PHIALS**

AT LOWEST MARKET PRICES.

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Bankers—London and Westminster Bank. Established upwards of 50 years.

**DINNEFORD'S FLUID MAGNESIA**



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

The most efficacious antacid and mild  
aperient for Delicate Constitutions,  
Ladies, Children, and Infants.

OF ALL WHOLESALE DRUGGISTS.

**METHYLENE.**

Obtained by the action of Metallic Zinc on  
Chloroform and Alcohol.

Discovered to be a general Anæsthetic by Dr. RICHARDSON  
in 1867.

1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.  
**COMPOUND ANÆSTHETIC ETHER.**

For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stoppered Bottles, 2s., 4s., and 7s.

**OZONIC ETHER.**

In 2-oz., 4-oz., 8-oz., and 16-oz. Stoppered Bottles, 2s., 3s. 6d., 7s. and 12s.

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First introduced as a medicine by Dr. RICHARDSON

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Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. &

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In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d.  
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Containing Pure Vegetable Ivory  
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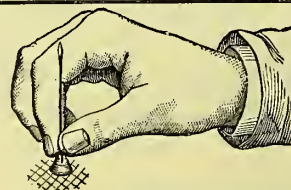
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Are equal to anything in the market, and are 15 to 20 per cent. less  
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Feeding Bottles, fitted and unfitted; Shop Rounds,  
Graduated Measures, &c., &c.

Special attention paid to Shipping Orders.

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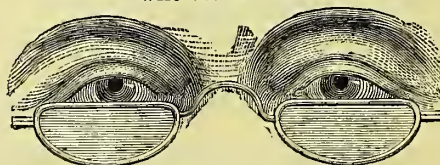
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**Water.**  
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 THE BEST AND MOST RELIABLE, AND THEREFORE THE CHEAPEST  
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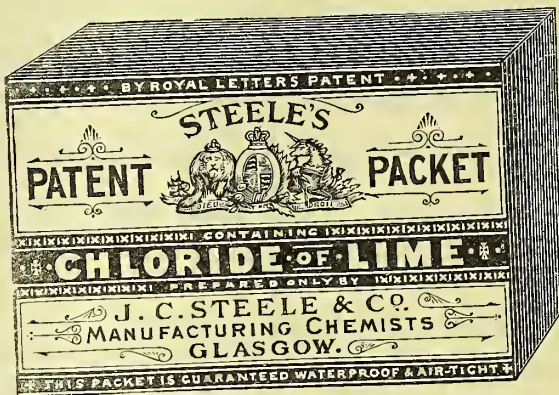
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Lime of best quality and full  
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they are specially suitable, and  
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**The Original**  
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Please  
see that  
**YOUNG'S**  
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**SEE BUYERS' GUIDE,**

**Pages 17, 18, 19.**



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BY ROYAL APPOINTMENT.



By Special Warrant,  
Dated 27th December, 1865.

## DAY, SON & HEWITT,

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A warm stomachic in severe diarrhoea or flux, by way of change of the gaseous fluid in great irritation of the bowels. ¼-dozen box, 10s.

Price of Chests, with "Guide to Farriery"—No. 1, £6/6/0; No. 2, £2/16/6; No. 4, £2/17/6 (for horses only). Carriage paid.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, LONDON. W.,

And sold by all Wholesale Houses in London; Hood & Co., Melbourne; Felton, Grimwade & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston; Dombain & Co., Christchurch; Jenoure & Co., Jamaica.

A LIBERAL DISCOUNT TO EXPORTERS, AND ALL PARTICULARS ON APPLICATION.

The True Origin of the Old Rhyme.



Where are you going to My Pretty Maid?  
I'm going a milking Sir she said:-  
Are your CATTLE all healthy my Pretty Maid?  
They are, thanks to DAY & SONS, Sir she said:-

Awarded 26 Prize Medals.

USED EVERYWHERE FOR NEARLY 50 YEARS.

## DAY & SONS' WORLD-FAMED HORSE & CATTLE MEDICINES.

DAY & SONS' "PURIFIED DRIFFIELD OILS" (commonly called by Farmers "Days' Black Oil") for Wounds and Injuries of all kinds in all animals; anointing in difficult Lambing and Calving, &c. Price 2/6 per bottle.  
DAY & SONS' "BLACK DRINK," the renowned remedy for Colic or Gripes in Horses, Scour, Diarrhoea, Debility, &c., in all stock. Price 1/6 per bottle, or 1/9 per dozen.  
DAY & SONS' "RED DRINK," unequalled for Cleansing after Calving, and all Feverish or Inflammatory Disorders in Cattle. Price 12/ per dozen.  
DAY & SONS' "WHITE OILS," for all External Injuries, Sprains, Swellings, Rheumatism, &c. Price 2/6 per bottle.  
DAY & SONS' "ALTERATIVE POWDERS," for Horses. Price 3/6 per Canister containing one dozen.

INVENTORS AND SOLE PROPRIETORS OF THE "ORIGINAL" **UNIVERSAL MEDICINE CHEST**, PRICE £2 4s., carriage paid, which contains above five, together with four other matchless medicines, and easy guide, "Everyday Farriery."

Beware of Imitations and note our ONLY Address—**DAY & SONS, CREWE, Cheshire.**  
WHOLESALE AGENTS: Messrs. Burgoyne, Burbidges & Co.; Sanger & Sons; Evans, Lescher & Webb, London; Messrs. Evans, Sons & Co., Liverpool, &c., &c.

# HOOPER'S MARKING INK

IS THE BEST, BLACKEST, & MOST PERMANENT.



Messrs. THRESHER & GLENNY, Hosiers to H.R.H. the Prince of Wales, say:—"We have used Hooper's Marking Ink for many years, and no Ink gives us such satisfaction or produces so black and permanent an impression."

1s. size, in Wood, 6s. 6d. per doz.; Card Cases, 5s. 6d.; 6d. size, 3s.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

Agent for Tasmania: Mr. GOULD, Pharmacist, Hobart.

Depot: W. HOOPER & CO., 24 Russell Street, Covent Garden.





USED BY SURGEONS ALL  
OVER THE WORLD.

In one week recently three curious uses were reported for which  
**"THE LEICESTER" IMPROVED ADHESIVE PLASTER,**  
*On Fine Flesh coloured Cambric,*  
 is found the best, after trying other makes (in the first case, nearly every known plaster). 1. A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. 2. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her finger. 3. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open, and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster, on Fine Flesh-coloured Cambric. Surgeons in all parts are frequently commending it. The sale rapidly increases.



A willing mind makes light employment.

**BOWLING & GOVIER,**  
 MEDICAL SHOP FITTERS AND CASE MAKERS,  
 GUN STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON.  
*Send for Estimates and List of Shops Fitted in our Modern Style.*

**EXHIBITION SHOW CASES OF EVERY DESCRIPTION.**

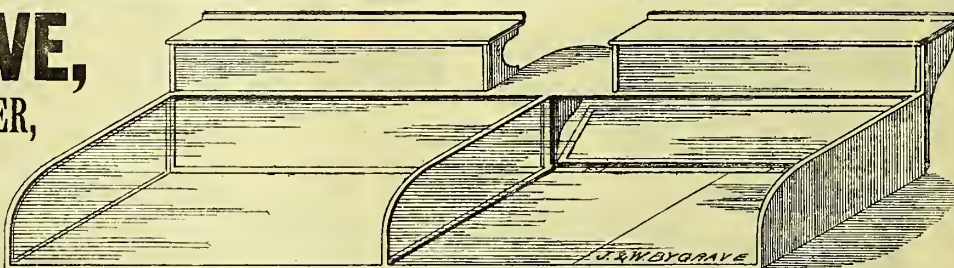
Best Workmanship only, at Prices that will insure satisfaction.

**E. NATALI,**  
**SHOW CASE MAKER,**  
 SHOP AND OFFICE FITTER,  
 207 OLD STREET, near Pitfield Street, LONDON, E.C.  
 Works—HENSON STREET.

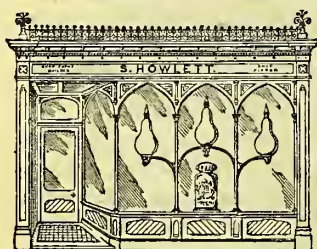
SECOND-HAND COUNTERS, FITTINGS, GLASS CASES, &c., always in Stock.

**BYGRAVE,**

SHOP FITTER,  
 Curzon Street,  
 Wenlock St., Hoxton  
 LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 6 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £6 12s.



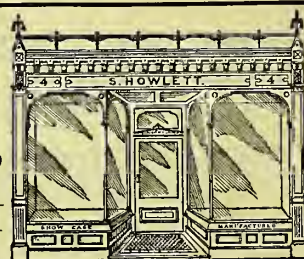
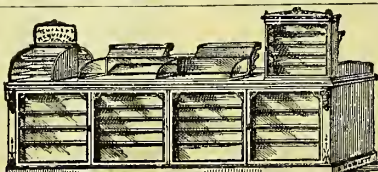
SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.

ESTABLISHED 1830.

**S. HOWLETT,**  
 MEDICAL AND  
**GENERAL SHOP FITTER,**  
 Shop-Front Builder and Show-Case Maker.

EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very CHEAP.  
 CABINET FITTER to the Pharmaceutical Society of Great Britain.  
 PLANS and ESTIMATES SUPPLIED.

Manufactory and Showrooms—4 Lindley St., Sidney St., Mile End Road, LONDON, E.



**HIGHEST AWARDS OF MEDALS & DIPLOMAS OVER ALL AMERICAN & FOREIGN COMPETITORS**  
AT MORE THAN  
**THIRTY INTERNATIONAL, STATE, AND LOCAL EXPOSITIONS.**

**To the 35 Medals already Awarded we take pleasure in adding the Highest Awards—SILVER MEDALS—given at Liverpool, 1886, and Edinburgh, 1886.**

MEDICAL JURORS' AWARD, PHILADELPHIA, 1876.—“ORIGINALITY: The successful application of Rubber as a base for medical and mechanical plasters.” “RELIABILITY and general excellence of manufactures.”

**A VERDICT UNIVERSALLY SUSTAINED.**

Firmly recognising the fact that the success of the medical practitioner and the surgeon depends in no small degree upon the integrity of the remedial agents and appliances which they employ, we have persistently adhered to the policy of making, in all our products,

**BUT ONE QUALITY, AND THAT “THE BEST.”**

Our facilities for the production of our specialities are unequalled in extent and completeness by any other concern in the World. Our establishment represents an industry of which we are the founders, and which owes its universal recognition to our investigations and our efforts to bring these preparations up to Pharmacopœial standards and the necessities of medical and surgical practice.

The status of the whole plaster business is well shown by the analysis of Belladonna Plasters, the leading article on the list of spread goods, made in March, 1886, by Dr. Albert B. Prescott, Professor of Chemistry at the University of Michigan, and President of the American Chemical Society, from goods purchased by him in open market. The assays were made by the same process, in parallel operations, for the quantity of total belladonna alkaloids, estimated as atropine, with the following results:

BRAND OF PLASTER.	Per Cent. of Atropine in the Plaster Mass.	Quantity of Atropine in one Plaster (avg.)
Seabury & Johnson ... ..	0.39	0.543 grains
Grosvenor & Richards ... ..	0.17	0.264 „
T. W. Heinemann ... ..	0.15	0.230 „
Geo. E. Mitchell (Novelty Plaster Works) ... ..	0.05	0.045 „
The Porous Plaster Co. of the Village of Sing Sing, Proprietors of Allcock's Porous Plaster (Star Brand) ... ..	0.06	0.062 „

We have repeatedly demonstrated the

**SUPERIORITY OF OUR ABSORBENT COTTON, LINT, AND GAUZE,**

and the utter lack of absorbency which characterises several other makes. This is a matter easily tested by dropping a bit of the cotton or lint into water, and noting the rapidity with which it sinks to the bottom. Extreme absorbency is important when absorbent materials are desired at all. Some of our competitors are crafty enough to purchase our own lint and cotton, and re-wrap them under their own labels, for the purpose of making tests, but uniform excellence will be found only in goods bearing our brand.

**THE PERFECTION OF OUR GOODS**

means an outlay of time and money which forbids our attempting to compete for the “Cheap John” trade, but no other manufacturer can place upon the market goods equal in quality to our own at as reasonable prices as prevail throughout our list.

**DISCHARGED EMPLOYEES AS WOULD-BE COMPETITORS.**

We are obliged to issue a word of caution to physicians and the trade against parties who advertise themselves as manufacturers of plasters, and base their claims to confidence on the assertion that they have, at some time or other, been in the employ of Seabury & Johnson. This claim is usually made to convey the impression that the claimant was our “Superintendent,” or occupied some position which made him master of the details of our business, and qualified him to operate works of this class. Thus far among those who have attempted to trade upon their past connection with us are a discharged night watchman, a foreman of one of our departments, and a former engineer and general mechanic. Not one of these men possesses or can possess the slightest knowledge of pharmacy, and no man has ever left any department of our factory whose services it was worth while to retain. Nearly every merchant, especially if he be also a manufacturer of anything, has had experiences similar to our own, and in view of the facts stated will readily understand, when offered goods claimed to be made after the formulas or by the process employed by us, that all such claims are spurious and are made with fraudulent intent, and that the goods will in no way resemble our own, either in their composition or their durability. A fact of which further assurance can be obtained from a careful comparison of analysis of the two makes. We have taken legal steps to protect the trade and ourselves from the fraudulent pretensions of this class of pretenders, which is liable to be increased every time we discharge an employé.

**SEABURY & JOHNSON,**

1 AND 2 AUSTRALIAN AVENUE, LONDON, E.C.,

**PROPRIETORS OF THE SEABURY PHARMACAL LABORATORIES,**

*Manufacturers of Indiarubber Pharmacopœial and Surgical Plasters, Antiseptic Dressings and Absorbents, Bandages, Oiled Silk and Muslin, and Surgical Dressings of all Descriptions.*

GEO. J. SEABURY, President.

J. M. PETERS, Treasurer.

ROBERT J. SEABURY, Secretary.





# LETCHERS' Permanent!

## CONCENTRATED

### UNIFORM!

### ECONOMICAL!

# LIQUORS.

*Any Quantity of a required Syrup at a moment's notice.*

*In Daily Use in Pharmacies and Dispensaries throughout the World.*

*May be obtained through any Wholesale Drug or Patent Medicine House.*

When Ordering, please Specify "FLETCHERS."

## LIQUOR Ferri Iodidi.

*EACH* fluid drachm contains 34.4 grains of Iodide of Iron.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms *Syr. Ferri Iodidi* of full Pharmacopœia strength.

## Liquor Ferri et Quiniæ et Strychniæ Phosph.

*EACH* fluid drachm contains 4 grains of Phosphate of Iron, 4 grains of Phosphate of Quinia, and  $\frac{1}{4}$  grain of Strychnia.

*ONE* volume added to three volumes of *Syrupus*, *B.P.*, forms Easton's Syrup.

## LIQUOR Calcis Lactophosph.

*EACH* fluid drachm contains 3 grains of anhydrous Calcium Phosphate combined with Lactic Acid.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms *Syr. Calcis Lactophosph.*

## LIQUOR Ferri Phosph.

*EACH* fluid drachm contains 8 grains of Ferrous Phosphate.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms *Syr. Ferri Phosph.*

## LIQUOR Ferri Phosph. Comp.

*EACH* fluid drachm contains, in addition to the alkaline Phosphates, 4 grains of Phosphate of Iron, and 8 grains of Phosphate of Calcium, dissolved in pure Phosphoric Acid.

*ONE* volume added to three volumes of *Syrupus*, *B.P.*, forms "Chemical Food."

## LIQUOR Ferri Hypophosph.

*EACH* fluid drachm contains 8 grains of Hypophosphite of Iron.

*ONE* volume added to seven volumes of *Syrupus*, *B.P.*, forms *Syr. Ferri Hypophosph.*

*Fletcher, Fletcher, & Stevenson,*  
North London Chemical Works, Holloway, London, N.



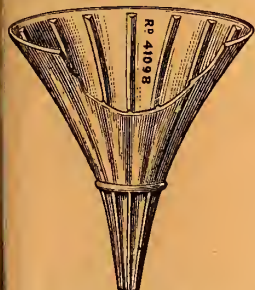


# LYNCH'S

## NEW



# REGISTERED FUNNELS.



Registered No. 41098.

### PRICES.

Nos. ....	1	2	3	4	5	6	7	8	9
Capacity .....	1 oz.	2 oz.	4 oz.	8 oz.	1 pt.	1½ pt.	2 pt.	2½ pt.	3½ pt.
Per dozen.....	7/	8/	11/	16/	24/	30/	40/	48/	60/

LESS USUAL DISCOUNT.

In bringing to the notice of the Trade our New Registered Funnels, we cannot do better than subjoin a Testimonial to their increased practical efficiency, given, after careful test, by Mr. Charles Umney (Messrs. Wright, Layman & Umney), and feel sure that any addition on our part to his testimony would be superfluous.

### TESTIMONIAL.

50 SOUTHWARK STREET, LONDON, S.E.,

11th January, 1886.

MESSRS. LYNCH &amp; CO., ALDERSGATE ST.

Dear Sirs,—My assistants have tried, in my firm's laboratory, your new Funnel, and filtration is 25 per cent. faster through it than through the old form of funnel.

(Signed)

CHAS. UMNEY.



REGISTERED.

# LYNCH'S

## NEW

# LOCK-LID COVERED POTS.

These Pots obviate an admitted defect in all those hitherto used for Cold Cream, Bears' Grease, Ointments, &c., &c. They are made in nine sizes, at prices subjoined, and their great superiority for the use of persons travelling will commend them for general adoption.

Size .....	1 & 2 drm.	$\frac{1}{2}$ oz.	$\frac{3}{4}$ oz.	1 oz.	
Per gross...	21/	22/	23/6	25/	
Size .....	1 $\frac{1}{2}$ oz.	2 oz.	3 oz.	4 oz.	6 oz.
Per gross...	28/	31/6	39/	45/	60/

LESS USUAL DISCOUNT.

SOLE MANUFACTURERS:

# LYNCH & CO.,

## ALDERSGATE STREET, LONDON; & 48 QUEEN STREET, MELBOURNE.



**SPECIAL NOTICE.****INGRAM & ROYLE**

Have the pleasure to announce to the Trade that they have been appointed

**SOLE AGENTS**

FOR THE

**CARLSBAD SALTS AND WATERS.**

Full details will be forwarded shortly  
per circular.

**CADBURY'S COCOA ESSENCE**

The medical profession order Cadbury's  
Cocoa Essence in thousands of cases, as  
the most wholesome beverage. Be sure

you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is just what it is  
declared to be by Messrs. Cadbury Brothers."—*Lancet*.

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*.

**GUARANTEED PURE AND SOLUBLE.**

Telegraphic Address—"Sumner Liverpool."

# R. Sumner & Co.,

## WHOLESALE & EXPORT DRUGGISTS,

### 50a Lord St., LIVERPOOL.

DRUG GRINDERS,  
WAX BLEACHERS,  
PILL COATERS,



MANUFACTURERS OF ALL  
CHEMICAL  
AND PHARMACEUTICAL  
PREPARATIONS.

**ESS. GINGER ALE.**

THE FINEST OBTAINABLE; especially suited for Export, because it keeps better than others. True Belfast flavour.

**TEMPERANCE WINES.**

Non-Alcoholic; require no licence.

**SYR. HYPOPHOSPH. COMP.** Alkaline; Cloudy.

**COSMINE.** A smooth, tasteless, odourless Petroleum Jelly. A natural product imported from Pennsylvania, refined  
and purified by patent process. Larger sales every year.

**CHLORODYNE LOZENGES.** **COD LIVER OIL** (Special Quality; Non-freezing; Finest Pale).  
**COMPOSITION ESSENCE.**